



MODERN WAR

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MODERN WAR

Containing Opinions and remarks

OF THE

MOST DISTINGUISHED SOLDIERS

ON THE LAST

WARS INCLUDING THAT OF EGYPT

COMPILED BY

MAJOR de S^t HUBERT d'ENTRAGUES

H.M. Reserve Forces.

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THIRD EDITION  
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MODERN WAR

Containing Opinions and Facts

MOST DISTINGUISHED SOLDIERS

THEIR INFLUENCE IN THE

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Instead of centralizing military administration, Prussia has worked out the principle of decentralization and definite responsibility of individuals; and instead of leaving all to be done at the last moment, in a hurried and perfunctory manner, there is not a single step in the mobilization of her forces which has not been arranged beforehand. There is nothing new or startling in the Prussian idea. It is but the principle of division of labour carried out in the organization of an army as Adam Smith described it to be in a pin manufactory. Each official has a definite duty to perform and definite instructions how to perform it, so that no meddling is required from Berlin, and no uncertainty exists in the various districts. The War Office knows to an hour when each *corps d'armée* will be ready, and where each Division and Brigade will be with its General who knows his officers and soldiers, and who is served by a Staff equally well informed.

Recruits in Prussia have to serve three years in the active Army, though, for economical reasons, they are generally sent home some months before the expiration of their term; then four years in the Reserve, after which they fall for five years into the Landwehr, and need no longer expect to be put into the first line in war except under extraordinary circumstances. The Landwehr, together with young untrained

men, have generally enough to do on the lines of communications, where they are being taught all things necessary to enable them to take their place in the front line should their help become necessary. The great fact is that the active regiments are always associated with their Landwehr battalions, their reserves, their depots of troops, arms, clothing, transport, and supplies of all kinds. Not an article of equipment has to be sent from Berlin or elsewhere. Everything they need is to be found close at hand in their own districts. There is no choking of railways with men hurrying to and fro before they can be equipped. Every commander of a district Landwehr battalion knows who are the men to be called up instantly from the Reserve to complete the active regiments, and if any of them are not close at hand there are letters already written to recall them, enclosing railway orders for their use. Their clothes and arms are ready for them when they join, and they are then within a short distance of their regiments. All the transport of each Corps is present in its district. There is a definite plan to supply the extra horses required. In a given number of days, known beforehand, each Corps is certain to be perfectly ready for active service and in possession of every requisite for a campaign; while arrangements have been made for the supply from its districts of all things likely to be expended during a war, whether it be short or long. The district feeds the children of its soil with whatever they cannot obtain in the enemy's country, and assumes at once the charge of the wives and families left behind. In the district, after the troops march, the remaining reserves and recruits are being taught their duties as steadily as in a time of profound peace, and a regiment calls these to its standard as soon as it has lost by wounds or sickness one-tenth of the men who marched with it. In a very few days after the War Office has telegraphed the order to mobilize, the country produces

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a number of small armies, each perfectly prepared to act instantly as an independent body or to join the others at a place ordered. Moreover, the plans for every conceivable campaign have been drawn up during the leisure of peace; the railway arrangements have all been made, and only need one word from the Chief of the State to confirm the projects of the General Staff. In fact, the various departments have done their work so well in peace that the order for war puts upon them no stress whatever.

The tactical system of the Germans disclose a large experience of the past, an intelligent appreciation of recent changes, and the results of continual efforts to make the army a perfect instrument. Thus the value of one of Napoleon's inventions — the separation of a national force into a number of independent units, each capable of acting by itself — was fully understood and carefully maintained; but instead of being formed into one army, obeying a single Commander-in-Chief, a certain number of *corps d'armée* were aggregated into distinct armies, each under a responsible leader, the immense masses of modern times making this arrangement obviously expedient. Thus, too, the principle of giving subordinates in high command great freedom of action while carrying out a general scheme, observed by Napoleon towards his Marshals, was faithfully followed by Von Moltke; but even more ample liberty was allowed, in consequence of the vast proportions attained by war in the present day. Celerity, absence of complications, and self-reliance were thus promoted; and though too much is not to be made of a mere matter of organization, the consequences were of undoubted value. Coming to tactics in a more technical sense, while the leading rule was steadily adhered to that the three arms should assist each other, and perform their proper functions in the field, the greatest care was taken to adapt them to the exigencies and uses of modern war, and to accommodate

their action so as to fall in with the changes wrought by modern inventions.

Strategy is a science which is constantly in progress, and which always takes into the reckoning the changes in the laws of arms in more recent times, as well as the utilization of the new improvements in the means of communication — such as railroads and telegraphs.

The distinct formal movements by which an army is made to assume throughout a similar or corresponding formation are no longer possible in presence of modern weapons. It is absolutely essential in order to diminish the disastrous effect of the present arms that each small section of an army should be moved in such a manner as the local circumstances impose. An attack in column is no longer possible, and an attack in rigid line — except for short distances — *never was possible* against properly posted enemies; and now, except under the very rarest circumstances, attacks cannot ever be restricted to short distances. If an army, then, is to attack at all, it must do so in skirmishing order, with a proper system of supports and reserves. This mode of battle implies an increase in the space occupied by a given number of men. In proportion as the space occupied by a company is increased, the difficulty of having men under control is augmented. Hence drill discipline is more necessary, and the combination of the most entire obedience with the greatest intelligence more desirable, than ever. It is obvious that it is now impossible for an officer to bring the same number of men under his eye as he could when they were more compact, and yet rapidity of movement and quickness in conveying and obeying orders are of greater consequence than before. The consequences of outflanking or of breaking the line are more serious than they were.

Now, as heretofore, and perhaps more than ever, the fate of battles depends on infantry; but the action of the other

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arms must not be forgotten. The French generally threw away their cavalry in dashing but utterly hopeless charges; and did not employ it enough in reconnoitring; the Germans followed exactly contrary rules.

The cavalry divisions covered their army and its marches as with a veil. Even before crossing the frontier the cavalry divisions in the centre of the army were pushed to the front. At the first entry into France they came upon the enemy at Spicheren, at Weissenburg, and at Woerth. Immediately after these actions the cavalry division again led the way. The enemy's cavalry was, on the contrary, very inactive. The French generals did not appear to understand the employment of cavalry after the German fashion.

This double use of horsemen acting as widely-spread *éclaireurs*, and concentrating into immense masses when needed, is best obtained by the Prussian *corps d'armée* organization, with its divisions of Batteries and its Cavalry detachments each attached to a specific Division, so that the little army is complete in itself with some 30,000 men and 90 guns.

It must be laid down as a rule that on the cavalry lies the obligation under all circumstances to watch and gain information concerning the enemy at great distances. But it is the business of the leader to carry this out with a requisite economy of the powers of this arm; for he who considerably weakens his cavalry before the first engagement cannot expect anything from it either in or after it.

The stronger, however, the body of troops destined as coverers, the further it can be pushed forward, and the greater will be its sphere both for gaining information and covering.

The cavalry should always form the head of the column even in the mountains; but in this case their strength should be limited. Their business should be only to secure and give intelligence; thus patrols would be the extent of their employment on such a ground. Some dragoons should always

be at hand to obtain quickly information of anything which may be observed on the flanks, which is often necessary on the march. Good riders on stout horses, with the confidence which these conditions afford, can do much.

The greater the distance that the view is unbroken over the ground, the more numerous will be the patrols which will be required to be sent forward ; and in this case they will require a support of their own arm.

The Artillery should be accustomed to act in masses, or to take up extended positions according to the ground, and nothing can be less effective, pretty as it is, than a line of Infantry with its Batteries all ticked off, gun by gun in line firing right in front. The real power of this mighty arm is most seen in concentration of fire, and in the combination of numerous batteries on a decisive point or two in the field.

If it was wished to open the battle in earnest, no time was lost by the Germans in deploying a strong force of Artillery, which generally took part in a connected line at the distance of from 2,000 to 3,000 paces, endeavouring by its fire to cover the further deployment of the main body and to shake the enemy. The division Artillery, and the greatest part of the corps Artillery, of the army corps engaged, were usually employed for this purpose. The Artillery secret had again been discovered, and the arm had become conscious of its strength. The German Artillery was employed on the largest scale in this manner at Gravelotte and Sedan. Long lines of guns kept up a fearful fire upon the French positions, shattered their formations, and silenced their batteries. We see the French Artillery, utterly unmindful of old Napoleonic traditions in general, not bringing forward sufficient force to meet the massive array of German cannon. We observe no particular cohesion in its formations and manœuvres. They worked generally by single batteries ; rarely were they able to form a line of guns equal to the German in extent.

The Artillery being the arm which can damage an opponent at the greatest distance, its mass must therefore come into operation before the weight of the Infantry is pushed into the fight. The Artillery should never be placed too far back in the column of march, it belongs rather to the front. In the situations in war on a large scale, individual batteries cannot manœuvre of their own accord, as frequently happens in small detachment exercises. Where 12,000 Infantry are striving to attain one object, the Artillery distributed to them should not seek to act on its own account, but on the contrary it should contribute to the attainment of that object with its united power, which is possible only, when the batteries do not act independently, but obey one will.

In war on a large scale, employing the batteries in a mass is the rule; their isolated employment is the exception. This principle must be rather the more maintained, inasmuch as the actuality frequently renders the exception necessary.

In all cases the Artillery of the advanced guard comes first into action and has to keep up its fire for the greatest length of time; and therefore every officer in command would, without doubt, prefer to employ the battery which carried the greatest number of rounds, and that is the 4-pounder battery.

To give a special escort to the Artillery on the line of march is wholly superfluous, since it is in direct communication with the other arms, divisions marching directly in front and in rear of it.

Infantry should not think the protection they get from guns is to be measured by their proximity, and should not feel they were abandoned when the guns move off to better positions.

Detaching guns from a battery must be considered as altogether exceptional, the rule being to keep the whole

together; in open level ground the battery of the advanced guard should always march united.

The German Infantry knows how to adapt itself quickly and safely to all possible positions, because it not only manœuvres on sound principles, but because it is accustomed to act according to the circumstances and situation of the moment.

To obtain the results of arms of precision, the old order of the German battle was modified in an extreme degree — battalions were formed into smaller units, stiff lines and columns were almost given up, and Infantry were trained to break into dense swarms of skirmishers as much as possible, to take any advantage of cover, and to manœuvre rapidly upon the field; while attention was paid to improve their fire, and to make them steady and self-reliant. Most properly, too, though modern small arms, were known greatly to favour the defence, the vicious principle was carefully eschewed of trusting to a passive defensive; and it was sought to overcome the difficulties of attack by quickness of movement, by sureness of aim, by making use of local accidents of the ground, and by combining in all instances, an advance on the flank with advance in front, so as to harass and perplex the enemy.

The German line, as it advanced to attack, presented formations of eager skirmishers who made use of every accident of the ground to conceal themselves and close with the foe, and maintained a deadly and continuous fire, though in loose order at a near range; and it always overlapped and outflanked the French, twisting round them in a destructive coil as they vainly endeavoured to stop its approach.

The loose order of wide-spread skirmishing which characterizes the Infantry tactics of this day has been compared to "the battles of savages," and it has been supposed that the effects of discipline and of acting in concert would be less important at the present day than in past times.

The contrary, however, is the case; experience has shown that long training is required to make use of modern small arms; that the advantage of union and combined practice is just as marked whether men fight in thin formations or in dense masses; and that the difference between raw and disciplined armies is at least as great as it was of old.

The German line of skirmishers approached the enemy by a succession of rushes. This was either done by taking advantage of cover, or else they would advance about 100 paces at a run, throw themselves down, and then run on again. Much address was displayed in this manœuvre. Although the Germans were frequently obliged to make front attacks, the principle of the turning movement always asserted itself. So fearful are now the effects of fire that direct attacks present many difficulties, and therefore demand so much time as to give the adversary leisure to reinforce the threatened part of his line. Thus turning tactics are fully justified.

The German front attack was usually combined with an attack in flank, made by a turning movement. It has yet to be seen whether such tactics, any more than strategy of the same kind, will succeed against a well-trained enemy who makes a vigorous counter attack: but they were very successful when encountered only by troops standing passively on the defensive. The turning movement for the flank attack makes the attacking line exceedingly weak, and gives the enemy a favourable chance to break it; in fact, a great superiority of force, which on most occasions the Germans had, is the true justification of this system.

It is self-evident that when one army so completely surrounds another the attacking line must be very thin in many places. According to old rules the best way of meeting such a move would be by a vigorous attack with a concentrated mass upon some point of the necessarily thin and extended line of the enemy.

The French Infantry generally received the German attack behind field intrenchments; and though they destroyed the enemy in thousands, they frequently allowed themselves to be turned, made no resolute counter-attacks, and ended by abandoning the ground.

In spite of the drawbacks (caused by the fire of modern small arms) the French might have tried the effect of an attack upon a point of the line which was surrounding them. But their tactics were entirely deficient in the offensive element on a large scale, by which, with inferior numbers even, you may gain great advantages if you are in a position to make rapid concentrations and advances on decisive points. Partial counter-attacks on isolated points of a battle field, such as the French made frequently, and with great bravery at Sedan, can only have a momentary effect.

The German Infantry, when on the defensive, did not open fire till the enemy was within 300 or, at the outside, 400 paces.

An attempt to break through investing lines with anything like a large army is a matter of extraordinary difficulty; the case is quite different from that of a garrison escaping from a fortress; and the proverb "*ville investie est ville perdue*" is more than ever applicable in modern war.

It is a very difficult matter to sally forth from a fortress even against unfortified positions, for the investing force has this great advantage, that the besieged can never take it in flank, being themselves surrounded by the position of the besiegers. They must, therefore, attack the latter in front, to which the breechloader opposes great difficulties. Besides which, to deploy considerable masses of troops among the works of a place, and to make them debouch from its gates requires much time and a great power of manœuvring.

A plan which is destined to envelop and overthrow the enemy both in front and on both flanks can only be undertaken

with a numerically superior force, and even then, can only be carried out by leaders who can rely upon the punctual execution by *all parties* of their share in the complicated dispositions.

Plans of this sort have frequently been proposed in former wars, but have never been executed as they were in the late campaign; they never can succeed except with perfectly formed and disciplined troops under efficient and distinguished leaders, a fact which has been clearly proved by history.

The frequent failures of concentric attacks formerly led to the opinion that such operations were altogether inadvisable. The danger to the aggressor is certainly very great, even, if only one part of the army machine should fail to perform its share in the general plan. The lines on which the several divisions of the force march are all converging, and only intersect each other on a point the possession of which they must strive for; the danger lies in the possibility of the separate parts of the attacking force being fallen upon and defeated in detail.

It is then very apparent when the march takes place against an enemy, the several divisions of the column cannot move in immediate sequence one close behind the other, as in that case any mishap to the head of the column would throw the whole into disorder. An advanced guard then should be selected, which in the larger divisions should consist of different arms, and possess sufficient intrinsic solidity and independence to hold its own if attacked by the enemy, until time is afforded for the rest of the column to draw up.

In order that the whole body should not have to form up on account of every small body of the enemy, but should be permitted to pursue its march undisturbed, it is so arranged that the main body shall follow the advanced guard at a certain distance. A wide distance therefore, between the

advanced guard and the rest of the troops, should always be maintained.

The question now is, whether there should be any considerable distance between other portions of the troops—such as between the main body and the reserve, which once was the rule.

That a leader in battle requires a reserve up to the moment when he will be obliged to employ it, is self-evident; all troops engaged, are at the best only conditionally in the hands of the superior command, and generally not at all, and a leader has only so far a pervading influence, as he has closely formed bodies of troops at his disposition, or understands how to form such bodies to meet the several crises of the fight. No action should be entered into, without a reserve. But why a reserve should be detached on a line of march is not easily to be seen. A march reserve is not requisite, and a battle reserve only when the fight commences.

Military nomenclature has here gone a step too far. Let us only for a moment consider what the idea of a reserve comprehends. *All troops, so long as they are not engaged in the fight, are the reserves of the Chief Command.*

Up to this time it has been the custom to lay down as a rule, for a line of march, one-quarter of the force, advanced guard; one half, main body; one quarter, reserve. When a battle commences, no one possibly can know whether the advanced guard will suffice to carry it through, or whether the last man will be required.

The advanced Guard opens the fight, the rest of troops are its reserve, from which as many men are supplied as are required. Why then should there be any other distribution?

Or, is a considerable separation with greater distances necessary within the masses of troops themselves? It would certainly not be advantageous in action if a part of the whole were to arrive half an hour later than is necessary.

This condition is shown when, for example, on a line of march of a *corps d'armées* the reserve is separated and is permitted to follow the tail of the column at a mile distant.

For the line of march, of course, intervals must exist, in order that the whole may not be affected by temporary impediments, but never of such extent as 1,000 or 2,500 paces; it is quite sufficient to fix as a rule, short distances between the several bodies of troops in close order. Undoubtedly we must picture to ourselves that these distances are there, in order to be lost under circumstances, and when these occur, it requires time to take them up again correctly.

Thus, separating a reserve from the main body on the march appears to be wholly useless; that which is useless is also dangerous, and such a danger undeniably lies in the distribution formerly in use.

Every effort should be used to maintain the original homogeneity of the troops, as formed during peace, that is, their order of battle as long as it is practicable. The order of march commonly practised, operates however, most decidedly towards destroying this most necessary principle.

Add to this, that the value of a strong reserve is greatly increased by the comparatively heavy loss within a short time, in an action of breech-loader against breech-loader. Now, by the distribution of the force into an advanced guard, main body, and reserve, and following the principle of bringing into action these divisions as united as possible, a leader might be seduced into allowing his main body to be engaged too soon, and in that case he would have only about one-fourth of his force — the strength of his reserve — left at his disposition.

It appears advisable to prevent any artificial separation of the unity of a brigade, especially at the moment of the fight. This may be done if the rule is laid down, that the Regiment which brigades with the advanced guard shall always be

placed at the head of the main body. (An analogous formation may also be employed either with small or large divisions of troops.)

We have then this advantage, that the first support of the engaged advanced guard is afforded by the nearest organized division belonging to the same, and the Brigadier is enabled to dispose of his whole united brigade in the battle, and the General of Division has a so much stronger body in close order as a reserve.

Further, a formation of this kind has this advantage — that if called on suddenly to form a new advanced guard for example, or if obliged to hurriedly change direction, the second brigade is not broken up.

The verbal command of a superior officer, given direct to the person concerned, is the surest method of imparting orders.

Also the verbal transmission of orders through Adjutants, orderly officers, &c., is sometimes advisable, but only when the order is short and positive, *e. g.* "the Brigade will take up its march through X to Y;" if anything further is to be explained with regard to general purposes, or other columns, &c., a written order is always preferable.

(The subordinate leader should be made perfectly well acquainted with all that the officer in command knows concerning the enemy so far as it relates to the object in view.)

The purport of a order, *i. e.* what the object of it is, should also be explained, but care should be taken not to go too far. Certainly it is very interesting for the troops to know how their better informed leader looks on the whole state of affairs, but this leader has to digest and ponder over all possible eventualities; and were such detailed views laid before the subordinates they would only become confused,

because they are not able to judge which of these eventualities would suit the case in point.

Nothing should ever be said in a written order concerning a possible retreat. Such orders fall into too many hands, and at the moment when all should endeavour only to gain the victory, the troops ought not to imagine that their leader is occupied with thoughts of retreat. Such orders, when necessary, should be given verbally in an order, every word not absolutely necessary is an evil. Orders covering a sheet of foolscap take up too much time to read, and still more time to understand; the criterion of a good order is simplicity and clearness; let one word only be struck out, and it ought to be unintelligible. Should this not be the case, then the word struck out is one too many, hence useless and pernicious.

Every leader must consider well what information he has to impart to his divisions, and what to withhold. Orders in circular form, which are advantageously used in peace time, should be avoided in the field. If certain and rapid receipt is to be desired, as many copies of the order as there are commands to which it should be delivered, should be prepared.

The bad selection of a staff quarter has been proved to cause very unnecessary delays in war, and often lamentable results.

Either the General commanding the Division, or his general staff officer should always be present in the staff quarters; both being absent at the same time is highly improper. Should any important orders, reports, or questions be necessary during their absence the Adjutant of the Division would not be in a position to issue the necessary instructions, since, as a rule, he would not be aware of the general state of affairs, or of the intentions of his Commander.

In general the place of each Commander is with the main body of his troops.

As a rule the Commander-in-Chief can only issue his orders after he has received the reports of the occurrences of the day from the several corps.

It must always be made known where the Général of Division is to be found, so that reports may be able to reach him.

With regard to the train of a Division, the led horses belonging to it will follow immediately in rear, and it should be strictly enjoined that they should not be turned into packhorses, so that in case of need they may be mounted immediately.

As a rule the munition wagons remain with the train of the Division.

The ammunition wagons, when they are not attached to the divisional train, belong to the regiment. Partitioning off the same to the Artillery Division, separately or united, is unadvisable.

The packhorses, baggage wagons, field forges, regimental staff wagons, and the carts of the chief staff follow the rear of the division.

The Pioneers at hand should never be allowed to be too far distant from the head of the column of march. A single road-bridge broken down would bring the whole Division to a stand. The repair of a bridge cannot be too quickly taken in hand with all the exertion at command.

The detail of a Van Guard is,—

- 1 Battalion
- 1 Squadron
- 2 Guns
- 1 Company of Pioneers.

In an open country such a guard, formed of all arms of the service, is generally unnecessary when there is a strong body of Cavalry in front.

The troops in the main body of the advanced guard are so arranged that those are in front who would be the first employed were the enemy to be met with. Should the Van Guard experience an obstinate resistance, so that the main body is obliged to interpose, in such a case also the Artillery should endeavour as much as possible to prepare the attack. The Artillery however cannot lead the head of a new division; it therefore follows in rear of the leading battalion.

When a mountain chain is between two marching columns, it can never be *certainly reckoned upon* that a fight which is going on in one valley will be heard in the other.

But if a communication exists, the detachment sent over the mountains by the column which is not engaged can essentially aid the other, especially if it should come up in the rear of the enemy.

Flanking parties of Infantry could not follow the march of the columns over the mountains. They would soon be left behind, even if they set off at the same time as the advanced guard, on account of being obliged to go up and down hill, and there being no path. Flank-covering in this manner, when the borders of the valleys are not very favourable, can only be carried out by means of branch columns when parallel valleys are to be found. If this be not the case, and if cross valleys open out from which the enemy can approach the line of march, detachments must be sent up as covering parties, which eventually will join the tail of the column.

It is most strongly to be recommended that bodies of troops, not of the same party, who are in a position parallel to, or behind one another, shall, above all things, keep up an uninterrupted communication.

All forming up of troops is to be avoided, unless the nature of the case absolutely requires it.

In order to rest the men, a simultaneous halt of the column of march is all that is necessary; each successive drawing

up is a preparation. But this should not be done on the mere possibility of an engagement, but only when such is inevitable, and then not till the advanced guard has been arrested on its forward march. Where it is advisable to form up depends chiefly upon the enemy, and on this account it cannot previously be determined on; it is also dependent on the nature of the ground and peculiar circumstances; but the ground must be of such a nature as to render it possible, and it forms the line of demarcation, in rear of which it is the intention to fight, or the battlefield on which the attack is to be made.

In the last case the forming up should not take place so soon, because the advance in deployed order takes up considerable time and fatigues the troops. If the advanced guard shall have taken up a position which is at all tenable, then it will be more advantageous to preserve the column of march up to that point. If, however, the object of the march is to be attained without fighting, the troops should only be drawn up when they are compelled to do so.

Every superior officer on a march should see his troops defile before him at least once a day, in order to control their march discipline, and especially to observe their general appearance.

If the enemy is not in the vicinity, so that it is not necessary for the leader to be with the body of the troops constantly, an inspection of this kind may be extended to the baggage and trains, otherwise every kind of irregularity will go on.

Special attention should be given to the times at which the march is to take place. He who rouses up the men unnecessarily as a rule, overlooks the fact that a large body of men like a Division, when its several bodies are separated by long distances, cannot all be set in motion at the same time, and thus the troops are tired out by assembling too

early. Whether the troops may have a hard day's work impending, cannot be known beforehand; therefore we should be more scrupulous in avoiding all that is unnecessarily fatiguing.

The art of command does not commence with bodies of troops which come especially into relations with the General Staff—such as the Division or Army-Corps,—it should be exercised with skill acquired by practice by every leader, even the lowest.

And this is a matter of such intense difficulty, that too much pains cannot be taken to acquire it, and in constantly practising that which has been learnt; therefore the study of its rules should be commenced at the moment that the young officer first begins his education in the mode of leading troops.

If we examine the old treatises on war, we find a number of plans given for arranging troops in order of battle. Two opposing armies used to proceed leisurely, and neither attacked till the other had made its dispositions. They were like two chess players arranging their pieces in the regular order before the commencement of a game. And no wonder, for in those days war was constant; men of rank made it the business of their lives, looked to it for their name, their fame, and often even for their wealth, while the soldiers were either feudal servants or mere mercenaries who sold their services for pay and plunder sometimes to one nation, sometimes to another. The fiery attacks of the French in their wars of the Revolution gave the death-stroke to the old system, and Napoleon's genius found in the use of requisitions combined with contracts means of moving his troops so rapidly as to out-manceuvre and demoralize all armies led by Generals who had been trained on the old system. What happens invariably in such cases occurred now. Napoleon's ideas were

adopted and his methods copied to a great extent by other Powers.

In every age one country or another is recognized as the leading school in war, because their exceptional study of the military art has led to exceptional results. It does not follow that the methods adopted for organizing the forces of that country, or even its system of tactics, are to be copied. It is only of vital importance that the principles on which success was based should be thoroughly understood. There is, indeed, the greatest possible danger lest in studying the methods of action the form should be taken for the substance, and a mere wretched, lifeless copy be the result. Wherever the sympathies of soldiers may now be directed, it is quite certain that Germany is the great school of European war, and thither are turned the eyes of all students. The Germans taught us to use breechloaders; they have shown to the world an almost perfect system of supply; they have re-affirmed the law, which began to be doubted, that a vigorous offensive strategy carries with it great advantage.

But it seems we have hardly yet appreciated the idea which they declare to be at the foundation of all their success, without which, indeed, a copy of their whole system would be not only useless, but disastrous. It is, that every officer, from highest to lowest, should be made an adept at the art of leadership in war. All progressive officers should insist upon this great principle. By the study and practice of leading troops, juniors will steadily mount the ladder of knowledge, and seniors will find that indefinite grumbling disappear which springs from ignorance of the difficulties inseparable from leadership in all its branches.

If officers of low rank are not trained and accustomed to take charge of an operation and conduct it with intelligence the best plans of Generals may fail signally.

If a man cannot attack or defend a small post with skill, he is not in the way to command a brigade well; and if he cannot place fifty men in good positions on outpost duty, he certainly cannot place five hundred. The Germans put faith in a training of development, from small things to great, in a general knowledge of tactics, individual responsibility, and a system of inspection which tests all these most thoroughly.

Though mechanical and social changes have affected subordinate rules of strategy, and have greatly altered the system of tactics, they have not made a radical revolution in the art of war in any proper sense. Rightly interpreted, the grand precedents of Napoleon require to be still studied; and now as heretofore, a distinct perception of the end to attain and of the means to gain it, a fitting distribution of force on the theatre, rapidity, skill, and good organization, are the essential conditions of military success.

The rapid and decisive success of Prussia must be wholly ascribed to ability in command and to superiority of efficiency in the field, prevailing over divided counsels, imperfect generalship, and a bad military system.

The less we imagine we can dispense with any of the lessons of the past the sounder our conclusions will be. The principles of war are immutable, but it was in direct violation of a tactical principle that the German armies won their most signal triumphs. It was not astonishing that an ill-directed and ill-handled army whose organization was rotten should have been beaten by one whose organization was sound, and which, superior in numbers and in material, was led by the best Generals in the world, nor were soldiers surprised to have it proved that armed mobs are not armies; but what is astonishing and surprising is the fact that the Germans succeeded on three capital occasions in surrounding the French without sustaining disaster, if not destruction. No one of the armies by which, almost to the last man, the last

horse, and the last gun, the French were led into captivity, had such an advantage in numbers over the forces which surrendered to it as would, according to all previous calculation, have justified its extension over the enormous expanse of ground which it occupied at the moment of victory, especially in face of an enemy from traditions and training most likely to take advantage of it. From the very circumstance of a General like Count Moltke adopting what a short time ago would have appeared to all military students the ridiculous method of literally surrounding an enemy, it is evident that a vast change has been made in the mode of carrying on the operations of war. Metz, Sedan, Paris—three startling professional paradoxes! And yet the movement on Königgrätz in 1866 was anomalous also. There two armies were placed so far apart, each in the presence of an enemy of superior numbers, that one was severely engaged and might have been worsted before the other could come up to its assistance. So vast is the change, indeed, in the application of principles that we are exposed in contemplating it to be led into errors of a very opposite character. There are those who rigidly adhere to maxims and traditions long after they have ceased to be applicable, and condemn tactical innovations of all kinds—fogies, young and old, who swear by the thin red line as a perfect formation for every movement, and adore solemn and deadly slow deployments with passionate tenderness. There are those who declare that all the lessons of the past must be forgotten, and that we should begin afresh to construct a new system from the muzzle of the breechloader. No sensible man could adhere to either side when the views of its champions are thus nakedly put, but under different forms and guises such views are entertained where one would least expect to find them.

To what, then, has the immense facility of manœuvring which the Prussians have shown been due? First, doubtless

to the perfection of the actual training for war which has been acquired severally by each man throughout the army. A system of working at once so free and harmonious would have been impossible if all had not been trained to appreciate the value of the same principles, and to understand the larger theory of the great art in the details of which they had to co-operate. At every point the training of the average Prussian officer shows itself to have been as high as it is probably possible that, for the ordinary run of an army, it ever should become, whether in the practice or in the theory of their profession. But was that all? Not one who has considered the history of the camp of Boulogne, and the effect which it had upon the succeeding wars of the Empire, and who studies the features of the present war, remembering always what is the nature of the German organization in peace time, will doubt how important an element that permanent local organization of the *corps d'armée* has contributed to the marvellous harmony of their tactical working.

It is necessary to develop by practice the good qualities of officers and men, and to secure the military excellence or elasticity as opposed to looseness, to enlarge the functions and responsibilities of officers, to constantly work bodies of troops together at home so as to insure freedom of manœuvring without degenerating into eccentric independence.

It by no means follows that the greater portion of drill should consist in such large manœuvres. Rigid formations will still be a most essential means of early training, and be also best adapted to most marches out of the immediate reach of the enemy. It is important that any details that can be suppressed should be done away with, in order that troops may be able to devote as much time as possible to perfectly mastering those which continue to be practical, and to acquiring field aptitude. But always enough will remain to demand much time. No one who has watched the effect of much

loose work upon ill-trained troops will doubt that as a means of discipline parade drill will be more, not less, essential than ever, little as it continues to be applicable to the purpose for which it was first designed.

As the mechanism of armies becomes more delicate and complex, the value of mature organization increases.

Highly as the truly creative activity of the French September Government and its astonishing results must be acknowledged, still the quality of the newly-levied armies of the Republic did not equal that of the former Imperial army. They had, it is true, a sufficient force of artillery, some of which was even superior to that of the latter; but they had but little cavalry, and the greater bulk of their numerous and well-armed infantry was deficient both in organization and drill. It fought well in defensive positions, but failed in that intrinsic firmness which is so necessary during lasting and energetic offensive operations. When attacking it seldom went beyond the preparatory advance of a dense swarm of skirmishers; the attack itself often failed as soon as it was met by artillery fire. Added to this, the organization of the ammunition and provision trains for so large a mass of troops was faulty, while the consumption was irregular and enormous. These circumstances crippled the free action of the newly-formed armies, and compelled them to cling to their lines of railway.

Modern war, from its rapidity, assumed that an adequate reserve should be immediately forthcoming, for troops without discipline there is no place in modern open war, something more is needed to form an army than putting arms in the hands of a great many men.

An army is never tried except in war. If the officials charged with its organization and administration are not students of war, if the army is regarded as a peace weapon or a political plaything, it will never be fully prepared for that supreme moment when only it is of any real use.

Success must attend the banners of a nation which does not forget in peace that war is sometimes a necessity, and spares no labour or forethought to prepare for it.

The deeper the study of the events of 1870-71 is carried the more confirmed will be the opinion that brave men when masters of the art of war both in principles and details will be far more than a match for brave men without professional education; that first defeats are almost irretrievable; and that thorough knowledge of war is a greater power than superiority of weapons or of numbers.

The one decisive lesson of the war from beginning to end is that no bravery will avail in modern war against superior knowledge, with the moral force attendant upon the first proofs of such superiority in knowledge. Great military geniuses are as rare as great geniuses in other departments of labour. A high standard of professional knowledge ought to be demanded from all.

There is great simplicity about Prussian plans as well as about Prussian organization. Whether the force to be manoeuvred against an enemy be a group of great Armies, an Army Corps, a Battalion, or a Company, the general plan is always the same—namely, to hold the foe fast in front with even an inferior force, trusting to the defensive power of modern arms, and to attack him in flank with great vigour; above all, to take the initiative whenever it is at all possible. Thus it was to have been in 1870, whether the French invaded or not. In the former case, the field of decisive battle would have been in Germany, instead of France; but the method of proposed action was the same in both cases. Everything depended upon information, and the best intelligence was brought in by the Cavalry, which made raids into the enemy's territory, not generally in large masses such as would attract observation, but in dashes of a few men at a time riding recklessly through the country, and taking their chance of

getting back again. Sometimes they came across hostile detachments, which almost invariably fled at their approach, probably believing that the daring horsemen were but the vanguard of a stronger force. Sometimes they penetrated quietly beyond the French lines, and, from some hill or church steeple, watched the breaking up of camps and the march of troops, whom they could count by battalions, squadrons, or batteries. One such report as a Cavalry detachment could bring in might appear of little value, but a number of them brought together and examined by keen intellects well versed in the theory and practice of war told nothing less than the movements of the whole French Army on any given day.

Concerning cavalry, there is a tendency to overwork them at first, forgetting that, while a tired man may be recalled to energetic action by moral means, a tired horse cannot be restored otherwise than by food and rest.

Often a couple of bold riders, if intelligent, can ascertain more than a whole cavalry division, for they can remain concealed where the division, could be perceived. When it is necessary to send forward a strong detachment of cavalry its commander should be placed in possession of all possible information, especially about the position occupied by any other bodies of friendly cavalry, the position of friendly troops generally, and that of the enemy so far as it is known. In the case of an unsuccessful action, support to routed cavalry is always more necessary than to infantry. Therefore, as a rule, infantry should be told off to support cavalry, even if they have to remain far behind. Nothing annoyed the Austrian cavalry in 1866 more than the habit which the then inferior Prussian horsemen had of falling back steadily and drawing their pursuers into the fire of infantry.

Mounted riflemen will be valuable.

As a rule in action the whole of the batteries should be well up, and working with the front line under the commander

of the artillery. The General should work the whole, as far as possible, as a compact body of troops, and understand how to treat it in that sense. He should not leave battery commanders to their own devices, but include the artillery in his plan of operations just as much as the other troops. But he should not interfere with details which are the business of the artillery commander, who should generally ride with the chief of the division, taking command of the guns when massed for work exactly for the same reason, on the same principles, and with the same responsibility as commanders of brigades, either infantry or cavalry. The artillery, being always liable to a sudden call forward to prepare an attack for infantry, should be near the front always. Its fire would probably have to be given for an hour or two before the infantry attack, even if the battalions were in fighting order. But, generally speaking, a long column has to get into fighting order, and the guns cannot be too ready to come into action and cover the deployment, so as to commence as early as possible the preparation for the infantry attack. As soon as the enemy draws off the artillery should rejoin the troops to which it belongs—that is, if attached temporarily to a brigade it should rejoin that brigade—and horse artillery go to its cavalry.

Although an artillery combat must generally be carried out at distances under 2,000 paces, the introductory fire will, nevertheless, be opened at greater distances.

Though a brigade takes less than 40 minutes to pass over a distance of 4,000 paces, the necessary time increases in proportion to the difficulties of the ground and strength of the force extended. Moreover, it is necessary to leave much to commanders of small bodies, such as battalions, only requiring them at last to be drawn up in the order and at the place marked out by the General. Though the superiority of the breech-loader to the rifle of the Austrians in 1866, and that of the German soldiers to the French levies in the latter

part of the Franco-German War, enabled the troops to be used successfully in extended order and almost without reserves, such a mode of action would be dangerous in the presence of a steady and well-armed enemy, and its past success must not be quoted as a precedent.

Independent fire well directed is calculated to scatter any column. Should it be composed of stout material, and the loss not too enormous, the men will join the advancing support in partially loose order; if not possessed of the requisite intrinsic power they will fall altogether out of the first line. A front attack on lines of infantry in good position, even made by very superior forces, has little chance of success unless well prepared and supported by artillery. Whenever it is possible, the enemy's flank must be threatened in combination with the front attack, and the dispersion of attacking troops menaced by great losses can only be prevented by depth of formation. On the other hand, the defensive power of the breech-loader allows the defending troops to be much extended with comparatively small reserves, but then the flanks are very weak, and the whole line probably retire if one flank is in jeopardy.

In these days more than ever depends upon manœuvring, and as front attacks must sometimes be made, the formation for the purpose must be deep. A division, therefore taking the offensive should, as a rule, irrespective of flank attack, move with a front of not more than 2,000 paces, and this supposes that its artillery has passed to the front to prepare the attack. Troops on the defensive may extend much more than this, so long as they take care to have reserves behind unprotected flanks. For purposes of manœuvre the whole force should be separated into organized, connected sub-divisions. The subordinate leaders receive their special tasks independently, and the Commander-in-Chief takes care that the working together of the several parts is kept to the general aim.

The temptation to interfere in the action of subordinates is immense. It is always present to weak leaders and sometimes even to strong ones. A General should keep his mind fixed on his own business, which is as much as a clever man and more than average man can do thoroughly. Interference in details may appear very energetic, but it is always at the expense of higher duties, and has a direct tendency against training good subordinate leaders. Clear orders, a general supervision, occasional information or direction towards a new task, and the selection of a position whence he can see all, or, at least, his first line, and where messengers will find him easily—such are, in addition to an intelligent control over the use of reserves, the first duties of a commander.

An excellent rule, and one worth impressing on the infantry, is that since, without doubt, the greatest losses are incurred by those who are running away, the best way to act when in inferior force before an enemy is to hold your ground, or even to attack boldly, trusting to be reinforced. But for success in such bold tactics it is necessary that all officers should have more responsibility, more right to take the initiative. Every column should support every other column without waiting to get leave from a General, and, furthermore, the bodies permitted to act with some independence must be smaller.

Modern improvements in guns and rifles render flank attacks almost imperative.

The Great Napoleon, as a rule, broke through the centre of the enemy's line. Napoleon and Wellington carried the principles respectively of attack and defence to their highest development—highest, that is, so long as men fought with the old weapons. The Napoleon and Wellington of to-day would change their systems, not because they used to be wrong, but because the two great Commanders would know how to adapt their tactics to the new circumstances.

The campaign of 1866 in Germany is, in some respects, even more interesting and valuable, from a military point of view, than the great struggle with France. Apart from its political results, it was the first contest since the days of Napoleon—at least, on the European Continent—which showed what strategic science and skill could accomplish in war on a great scale; and it was the first also which clearly indicated the changes in the formations of troops, and, in some degree, in the direction of armies, which the mechanical inventions and progress of our age have rendered necessary or expedient.

Preparations were being made in Austria as early as March, even by that time the heads of her armies were visible along the Moravian frontier, and South Germany was getting ready; whereas Prussia did not “mobilize” her forces until the first week of May.

The plan of campaign on the part of Prussia had been evidently designed with careful forethought; and, like the projects which so often gave Napoleon victory over a coalition, was a fine specimen of calculation and daring. This plan rested upon the assurance that Hanover, Cassel, and Southern Germany would not be ready to begin hostilities, and that the numerous and martial legions of Austria formed the real and main strength of the Allies; and, accordingly, it was proposed to leave a small force only in the North and West to paralyze the enemy on the Weser and the Maine, while the principal power of the Prussian Monarchy should be directed against the great State which alone was felt to be truly formidable. For this purpose 50,000 men only were to confront the Allies from the Elbe to the Rhine, though their foes would be twice their number on paper; but three armies, forming, when joined, a mass of 378,000 soldiers, were to be marshalled against the hosts of Austria, which, it was expected, would be less numerous even if united to the Saxon contingent.

This scheme, framed with such true insight, was executed with celerity and skill, and by the middle of June the weak

divisions of Manteuffel, Falkenstein, and Beyer were collected at Harburg, Minden and Wetzlar, ready for an immediate advance into Hanover, while the Army of the Elbe, under the veteran Herwarth, that of Lusatia, under Prince Frederic Charles, and that of Silesia, under the Crown Prince of Prussia, drawn together from a variety of points, had taken their positions along a broad front extending from near Dresden to beyond Neisse; and already approached the Saxon and Bohemian frontier. At this time the Allies, it would seem, had not formed any definite plan; and while their enemy was about to make a well-concerted and sustained attack they were discussing, with the usual hesitations and jealousies of a loose coalition, projects of an advance by Hof on Berlin, of a raid into Lower Silesia, and of a march on the Elbe through the Saxon passes. Nor were their forces even nearly prepared, nor had they anywhere taken positions which would have given them a fair chance of success. The Hanoverian, Bavarian, and other Southern contingents were not yet even equipped for the field, and were scattered in dis-united fragments along the Main, the Weser, and the Rhine; the Saxons were isolated in their own country; and though a large and formidable Austrian army was being directed towards Bohemia, its preparations were still incomplete, and one only of its seven *corps d'armée* had passed beyond the Moravian frontier. Such are the advantages which clear perception, a fixed purpose, and a good military system give in war over divided counsels, unsettled resolves, and faulty organization; and it is a simple fact that, before an action was fought, the promise of victory was all on the side of Prussia.

Hostilities having been proclaimed on the 15th of June, the Prussian commanders set their troops in motion at all points for an offensive campaign.

On the 16th of June the Army of the Elbe, about 45,000 or 46,000 strong, took possession of the capital of Saxony, driving before it the Saxon *corps d'armée*, compelled to retreat at once into Bohemia; and by the 19th it firmly occupied the region along the right bank of the Elbe, covering its right flank by the course of the river, and extending its left towards Hinchfield and Rumburg. Meanwhile, the Lusatian, or 1st army, composed of the 2d, 3d, and 4th corps, and of one corps of cavalry, and numbering about 95,000 soldiers, had been led by Prince Frederic Charles to the neighbourhood of Zittau and Marklissa; and by the 21st it had come into communication with the Army of the Elbe on the very edge of the Bohemian frontier. A corresponding converging movement had been made by the Crown Prince of Prussia, and by the 22d, the Silesian, or 2d army, about 115,000 strong, and made up of the Guards, the 1st, the 5th, and the 6th corps, with a single corps of cavalry also, had advanced to the tract between Landshut and Glatz, its rearward divisions, however, still stretching back to a short distance from Neisse, in order, probably, to deceive the enemy, and to threaten Austrian Silesia till the last moment. Thus, on the 22d of June, the three Prussian armies, approaching each other on a narrowing front, had overrun Saxony and reached the verge of the mountains that bound the north of Bohemia; and a march or two would lead them through the passes in the hills into the territory of the Austrian Empire. They still, however, spread along an arc of 130 or 140 miles, and held perfectly distinct lines. A large gap still existed between the positions of the 1st and 2d Armies. Could they venture in this situation to penetrate the mountain barrier before them and to risk an encounter with a foe who, if concentrated, would be able to fall upon their separate columns, to meet and overwhelm them in detail, and to renew the exploits of the youthful Bonaparte at Castiglione, Arcole, and

Rivoli? Von Moltke, however, did not hesitate, and uniting the Army of the Elbe with the 1st, and directing the second to close up on the right, he caused the two masses to enter the defiles, and gave orders that they should gather towards each other, from east and west, and concentrate within the Bohemian frontier, if possible in the vicinity of Gitschin. The Prussian armies, though widely separated, were directed to combine in Bohemia, after a march through the hills at far distances; in the main because it had been nearly ascertained that the Austrian army could not be collected upon an interior line sufficiently soon to reach them when apart; and though the invention of the field telegraph, which lessens the danger of operations of this kind, and the great strength of the Prussian armies which made it difficult to defeat either quickly, may have had some influence on Von Moltke's judgment, the true reason that he acted as he did was that he had grounds to believe that his enemy's forces would not be able to unite against him. His advance, therefore, which gave the Prussians the great advantage of a speedy movement conducted upon a variety of lines may be vindicated by well-known examples, and was not a new and unheard-of operation; and we may be quite sure he would not have tried it had the Austrian army been drawn together and ready to strike in the north of Bohemia. Nor was the Prussian march, however favourable the conditions were under which it was made, exempt from the serious dangers which must inevitably threaten an army that endeavours, starting from distant points, to effect its junction by separate lines, if at any time within reach of its enemy.

On the 23d, 24th, and 25th of June the Prussian armies were in full march, the Elbe and 1st Armies making their way through the passes in the Bohemian range to the Iser, the 2d Army gathering towards the first, on a front between the points of Liebau and Pastehkau. What, in the meantime, had been the operations of their foe, as they were hazarding

this converging movement, which, had he been able to seize the occasion, might have been made disastrous and even fatal? Austria had been arranging her Army of the North, as she called it, since the beginning of April, if not three or four weeks before; but when the ill-fated but high-souled Benedek assumed the command, on the 10th of June, its arrangements were not nearly complete, and seven or eight days, at least, were required to supply it with material absolutely needful, and, in a word, to put it in marching order. Here we see once more the superiority of the Prussian organization over that of Austria; the Austrian army was not ready for the field as soon as the Prussian by more than a week, though the work of preparation had begun much earlier; and to this circumstance we must largely ascribe the discomfiture of the Austrian projects, and the calamitous reverse which befell the Empire. On the 15th of June, when war was declared, the Army of the North, perhaps, numbered 240,000 men, including noble reserves of cavalry, and an artillery force of high renown; but of the seven corps of which it was composed, one only, the 1st, as we have seen, was stationed beyond the Moravian frontier, while the remaining six, comprising the 10th corps, the 4th, the 6th, the 3d, the 8th, and the 2d, with almost all the divisions of horse, were cantoned far to the south, in Moravia, between Zittau, Olmütz, Wischau, and Austerlitz. The mass of Benedek's forces, therefore, was still far away from the Bohemian range, the decisive scene on the theatre of operations; and even at this moment two or three days were needed to complete its preparations, and to enable it to proceed northwards. On the 17th and 18th of June the Army of the North was at last set in motion; and the general scheme of Benedek's operations was in conformity with the true rules of war, though even at this time it was hardly feasible. The Austrian commander plainly foresaw the double converging movement of the Prussians, and he resolved to

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meet it in the manner in which it obviously should be met in theory, to retard the separated enemy's advance, and then to take a central position, to strike the Prussian columns as they emerged from the hills, and to defeat them before they could effect their junction. With this object in view, he directed Clam Gallas, the chief of the 1st Austrian corps, which was the most northward, to march and join the Saxon contingent, already retreating upon Bohemia, and with this force, about 45,000 strong, to hold steadily the line of the Iser, while he prepared in person to move his six corps, and to occupy positions behind the Elbe, between Josephstadt and Koniginhof, with not less than 200,000 men. In this situation he would have placed his whole army just behind the frontier, with perfect facilities of communication, and interposing between the Prussians as they debouched into the Bohemian plains. In principle, the project was worthy of a great captain. But in war the execution of a plan is everything, and at this moment it was scarcely possible, at least without extraordinary efforts, to carry out successfully Benedek's design, for the bulk of his forces on the 18th of June was further from the interior line in Bohemia, which was his great object, than the Prussians were from the point at which they might expect to unite their armies. Thus it was not to be supposed that the Austrian commander would be in time to break in between the Prussian masses as they advanced; and it was the knowledge of this that is the true justification of the Prussian leader's movement.

On the 18th of June and the following days the army of Benedek was on its way from Moravia to the Bohemian frontier. The General of 1796 and the enthusiastic warriors he led might possibly have reached the space between the Iser and the Elbe in sufficient time, but the Austrian movements were far from rapid, owing, doubtless, as much to a bad system as to any errors of the General-in-Chief. Mean-

while the Saxons had joined Clam Gallas, that commander holding the line of the Iser from Jung Bunglau to Munchengratz and Turnau, according to the orders of his chief, it being expected that the main army would be close to the frontier to support this wing before the enemy could seriously assail it. By the evening of the 25th of June, however, one only of Benedek's corps, the 10th, had reached the Elbe at Josephstadt, still a good way from the central position which the Austrian commander hoped the occupy ; and his remaining five corps were far to the rear, filling the region between Pardubitz and Policka, and unable for several days to concentrate. By this time the Prussian Army of the Elbe, and the 1st under Prince Frederic Charles, were not more than a march from the Iser, while that of the Crown Prince of Prussia, though still five or six marches distant, was preparing for an advance to the Elbe ; and thus, at this crisis, the Prussian forces were better united than those of Benedek ; he had scarcely a chance of reaching the line, which was the mark and end of his efforts ; and while the detachment of Clam Gallas was isolated, and almost within the grasp of an enemy more than double in numbers, the main Austrian army was in no condition to strike or to put forth its strength against the Crown Prince of Prussia. Such is the manner in which a good project may be marred by miscalculation and slowness ; and thus, too, may military movements which seem on the surface wild and hazardous be proved to be well-designed and correct.

On the 26th of June the Army of the Elbe came for the first time in contact with the troops of Clam Gallas, and after a few affairs of outposts, the Austrians fell back behind the Iser. Prince Frederic Charles being now fully in line, the two Prussian armies, in great strength, assailed at once the retiring enemy ; and having routed him with great loss at Podal, Munchengratz, and Turnau made good their way to Gitschin on the 29th, the Austrians and Saxons, utterly beaten,

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hurrying in precipitate flight to the Elbe. Meanwhile the army of the Crown Prince of Prussia had been advancing towards the point of junction, and had also gained important successes, though not wholly unchecked by defeat. On the 27th of June part of his first corps became engaged with the 10th of Benedek, which, as we have seen, was the most forward, and it was driven back with some loss at Trautenau, a failure which for a time made the position of the 2d Army critical, and shows the danger of this kind of movement. On the same day, however, the 6th Austrian corps was defeated at Nachod by the Prussian 5th; and as Benedek's 10th, which had advanced too far, was turned and afterwards routed by the Prussian Guards, the Crown Prince was able to pursue his movement, though in a somewhat disjointed manner. Benedek, thus assailed by the enemy on his right, whose advance he had hoped to frustrate, now endeavoured to draw his forces together; but his rearward divisions could not be up in time, and he was only able to aid his defeated vanguard with one additional corps, the 8th. On the 28th this fresh reinforcement was, with part of the 6th Austrian corps, overthrown with ruinous loss at Skalitz, and driven headlong across the Elbe; and the 2d Prussian Army, now free from its foe, converged rapidly towards its supports, though even yet it was a long way from Gitschin. Meanwhile, the luckless Austrian commander, whose first line had been half destroyed, called up his 4th, 2d, and 3d corps, the only ones which remained intact; and rallying his defeated wings, tried to form his army into one great mass, and still to make head against his enemy.

In these operations we see the results of the tardiness of the Austrian advance, of the dislocation of Benedek's army, and of the celerity of the Prussian movements. Clam Gallas had been sent to the frontier because Benedek felt assured that he would be in time to support his lieutenant, but the

Austrian commander was too late, and his detached wing had been routed in detail. Again Benedek on the 25th of June, had not reached his central position, and had not any two of his corps near each other; and the consequence was that he was not able to approach the line which he desired to occupy, and when attacked by his active enemy he was not strong enough to resist his onset. He failed, in a word, to meet the converging movement of the Prussians by concentration in time, and saw his divisions beaten in detail; and his fine army was cruelly stricken before it could develop its power.

On the 30th of June, the Elbe and the 1st Army held Gitschin in considerable force; but though connected with its supports by cavalry, the 2d Army was fully 25 miles distant; and as Benedek had by this time concentrated the greater part of his forces; it is just possible that a chief like Napoleon would have had a chance of striking with success one of the two masses opposed to him, so essentially critical, under any conditions, were the separate movements of the Prussian leaders. Benedek did not, however, make the attempt; in fact, probably, his disheartened soldiers were not equal to an effort of the kind; and in the actual state of his affairs, his most prudent course would, perhaps have been to have retreated behind the Elbe and gained some rest for his shaken army. He adopted, however, one of those half measures, so characteristic of second-rate commanders, which though it gave him more nearly victory than superficial persons suppose, was, nevertheless, we believe, a mistake since he had definitively renounced the offensive. The ranges of eminences beyond the Elbe, between Josephstadt and Königgratz, present a series of strong positions, extending from Nechanitz on the far left to Sadowa and Racitz on the extreme right, and covered by the streams of the Bistritz and the Trotinka, and Benedek resolved to make a stand here, and to risk the

chances of a decisive encounter. He fell back to this ground on the 1st of July, and gave orders on the following day, that his army should prepare for a general action. His left, the Saxons, and 3d corps, with the 8th as an immediate reserve, was posted from Nechanitz to Sadowa, holding Probus and Neue Prim in great strength, and with the Bistritz along its front; and his centre and right, the 4th and 2d corps, with the 10th a little distance in the rear, were directed to occupy the space between Sadowa by Lipa and Chlum to the Elbe, the Troitinka protecting the extreme flank. The 6th corps, with great masses of cavalry and artillery, formed the general reserve and held a central position behind the line of battle, ready, when necessary, to come to its aid. The whole army, with the Saxon contingent, notwithstanding the losses of the preceding days, still numbered about 208,000 men.

While Benedek had been making these dispositions, the Prussian armies had been advancing and finishing their converging movement. They had not, however, nearly effected their junction by the 2d of July; and on that day they were spread along an arc about 30 miles in width, from the extreme right at Smidar, to the far left at Gradlitz. The Prussian commanders were, in fact, unaware of Benedek's resolution to stand and fight; and as they calculated that he would not venture to risk a battle till he was behind the Elbe, they were moving forward as quickly as possible, without concentrating their still parted forces. On the evening of the 2d, however, Prince Frederic Charles became assured that a part, at least, of the Austrian army was between him and the Elbe, and he resolved to attack it without delay, with the Army of the Elbe and the 1st Army, sending at the same time to the Crown Prince of Prussia to request the co-operation of one of his corps. Had this project been carried out, about 130,000 men would have been engaged with 208,000 in a defensive position of great strength; and most probably the

Crown Prince's detachment would not have sufficed to redress the balance, especially as, being distant from the field, it could not arrive until late in the day. This obviously faulty design, however, was corrected by the remarkable man to whom the arms of Prussia owe so much. Acting on true principles, Von Moltke gave orders that the Crown Prince should advance at once, not with one corps but with his whole army, to give aid to Prince Frederic Charles; and he calculated that, by a vigorous effort, the Crown Prince would strike the Austrian right in sufficient time to insure victory. This was the best move that could possibly be made; yet as the army of the Crown Prince was fully 15 miles from Sadowa, with a difficult and intricate country between, and as the order could not reach him until the early morning of the 3d, the operation was far from certain; and Von Moltke would hardly have risked so much, had any other course been now open to him. It deserves also especial notice that the momentous summons to the Crown Prince was intrusted to a single aide-de-camp only, a mistake which has often cost armies dear, and which proves that even the Prussian Staff is not incapable of serious oversights.

Prince Frederic Charles attacked Benedek with part of the Elbe and 1st Army in the early forenoon of the 3d of July; but though the Bistritz was at last forced and the woods around Sadowa were won, the main Austrian line resisted with success, and after noon the engagement began to wear an ominous look for the Prussians. The powerful Austrian artillery proved more than a match for the Prussian batteries, which were not served as in 1870; the power of the needle-gun was comparatively unfelt in the thick cover which lined the position; and, notwithstanding its heroic efforts, the assailants' left wing might have been crushed, had Benedek boldly assumed the offensive with the great superiority of force at his command. The favourable moment was, however,

lost; and before long an apparition on the Austrian right decisively turned the scale of fortune. The Crown Prince of Prussia had set his army in motion with remarkable energy; and his troops, straining every nerve to advance, reached the neighbourhood of the field about 3 o'clock, and drew off the weight that oppressed their hard tried comrades. A gap existed now in Benedek's line, for the 4th and 2d Austrian Corps had taken a position in front of that assigned to them, and had besides inclined to their left, in order to press Prince Frederic Charles; and Chlum, the key of the Austrian right was brilliantly seized by the Prussian Guards, while their supports moved forward on all sides to their aid. The Austrian commander, completely surprised, in vain called upon his numerous reserves to dislodge their rapidly increasing foes; and as the pressure on his right became overwhelming, the whole Austrian line by degrees gave way, and, abandoning from Nechanitz to the Elbe the positions they had held in the morning, rolled beaten away from the blood-stained field. The cavalry and artillery, however, covered the retreat with heroic devotion; and though a number of guns were captured, and its losses in men and material were great, the Austrian army crossed the Elbe safely, nor was the pursuit of its foe vigorous.

The victory of Sadowa was the result of the arrival on the field of the Crown Prince of Prussia, an event which, like Blucher's march on Waterloo, threw an overwhelming force on the enemy's flank, and before long decided the fate of the day. The junction of the Prussian armies, however, in sufficient time was by no means assured; in fact, Benedek might have destroyed the left wing of Prince Frederic Charles before the 2d Army came up; and had this occurred the ultimate issue would have been different on the page of history. This proves how hazardous at last became the operations of the Prussian leaders; their divided armies never

united until actually upon the field; and though their general movements were fine, the unexpected stand of the Austrian commander exposed their armies to no little peril. The plan of Prince Frederic Charles, evidently founded on an inaccurate notion of Benedek's strength, was, it is hardly necessary to point out, a mistake; and had it been adopted, it is difficult to see how the Prussians could have escaped defeat.

Viewed as a whole, the battle bears a marked resemblance to the now half-forgotten struggle at Bautzen; but, owing to what was almost a surprise, the Prussian operations do not disclose the precision and depth of Napoleon's manœuvres; and, strategically, the advance of Ney was more thoroughly and surely planned than the march on Chlum.

Benedek probably, ought not to have fought at Sadowa at all after the severe defeats of the preceding days; he would have found better positions of defence had he retreated behind the Elbe and its fortresses, and though the stand he made at Sadowa assuredly gave him a chance of victory, this is no proof his decision was correct. His dispositions for the battle itself contemplated only a passive defence, a system always to be condemned; and, in consequence, he certainly lost, as in the case of Bazaine at Gravelotte, an opportunity of crushing the Prussian left wing.

The Austrian chief, subduing ill-fortune, effected his retreat with vigour and skill.

In 1866, as on other occasions, the Austrian commanders gave signal proof of qualities for which they have been often famous, tenacity and perseverance in the hour of disaster.

It is almost useless to refer to the secondary operations in the Western theatre, for they had little influence on the final result; and yet they are not without much interest, for they strikingly illustrate the superiority which a small force boldly

and ably directed may acquire over the far more numerous, but ill-organized and ill-commanded levies of a faint-hearted and weak coalition.

The issue was due to careful preparation, to an organization for war which, under favourable conditions, sent masses of warriors into the field with a celerity never before witnessed, and to scientific and well-ordered strategy, improved tactics, and superior weapons. In the plan of campaign of the Prussian chiefs and in the general distribution of their forces we see deep calculation and insight; the march of their armies into Bohemia, though hazardous, was justified by the rules of their art; and the rapidity and ease of the Prussian movements and the power of the fire of the Prussian infantry were important elements in deciding the contest. The campaign also showed that operations on distinct lines may be less liable to objection than they formerly were, the field telegraph having in some degree united even widely-divided corps, and armies now being so large that it is difficult to treat them quickly in detail; and it showed also that modes of tactics in use in the days of Napoleon and Wellington must be abandoned, and a complete change effected. It is, however, a mistake, to imagine that this campaign or that of 1870 has wrought a revolution in military science, or in the leading principles of the terrible art which founds and destroys Empires. It is sheer ignorance to say, as some have said, that the Prussian army is not essentially a standing army in the true sense of the word; and it is as ludicrous to argue that the Prussian commanders have "invented a novel method of strategy" as it was to insist that the results of Rosbach and Leuthen were caused by "the oblique order" of Frederick the Great, or that of Austerlitz by "the central attack" of Napoleon. Not less idle is the supposition that the possession of interior lines of operation has been found to be of no advantage, and that one of the great objects of strategic man-

œuvres need no longer be sought in modern warfare. Undoubtedly the value of interior lines has diminished as armies have so greatly increased; it would be almost impossible to play the magnificent game of 1796 with 200,000 men against 400,000, instead of 40,000 against 80,000; but this was pointed out long ago by Jomini, and was illustrated in the campaign of Leipsic. The war of 1866, however, itself shows that this position is still of capital importance; it was because Benedek would almost certainly be unable to gain an interior line that the Prussians advanced in the way they did; in the operations before Sadowa we see how perilous it may be to attack a commander who holds an interior line, even when its advantage has been almost lost; and Falkenstein's movements against the Southern Germans, like those of Lee in 1862-3, prove what a good General on interior lines can effect against incapable foes.

Werder's dash at Bourbaki at Villersexel and march from Vesoul to the Lisaine are fine specimens of daring generalship, though not to be cited as military precedents; but there is no doubt that he was for some days in danger, wretched as Bourbaki's enterprise was as a general strategic conception.

Manteuffel, with the 7th and 2d Corps, bore down rapidly on Bourbaki's flank, and when informed of Werder's success resolved to close on the Frenchman's rear, and cut him off from his retreat southwards, and finally, the German chiefs enclosed in their net their luckless victims, and the French Army was left no choice but to surrender or cross the Swiss frontier. These decisive operations strikingly illustrate the great advantage of the telegraph in modern war, for Maunteffel and Werder, though widely separated and operating on distinct lines, were always in communication with each other; and in this way, certainly, one of the chief objections made formerly to manœuvres of this kind is, to a great extent,

removed or diminished. Still it is impossible to deny that such attacks are full of danger, and likely to fail against a resolute foe in a central position; it remains to be seen whether a mechanical change will wholly efface the lessons of the past; and attempts to surround a large army are only likely to succeed when it has lost confidence in itself and its chiefs. As it was, poor as was the composition of Bourbaki's improvised force, and pitiable as its condition was when it took refuge under the guns of Besançon, it might not improbably have effected its escape, had it marched directly by Auxonne on Dijon.

All reasoning from facts, all experience of the late war, tends to prove that a trained army, properly covered, either naturally or artificially, properly armed and supplied with ammunition, is unassailable in front with any hope of success. So long as the French regular army existed it never once failed to meet and hold back a front attack until its flank was turned. The author of the *Tactical Retrospect* of 1866 tells how the fire of a defending force causes the attacking force to stream naturally towards the flanks. With later experience before us we may say that what the troops did by instinct was the right thing to do, and must in future be done systematically and by order of the Generals. Von Moltke, in an article published by the *Militär Wochen-Blatt*, in July, 1865, says that a line of troops with open ground in front of them can defend themselves against any front attack and be pretty sure of success. On the other hand, "As the chance of a front attack being successful becomes smaller so much the more certain is it that the enemy will direct his attention to the flanks, and so much the more important does it become that these should be well protected." His words have been verified in every battle between armies provided with breechloaders, and it seems impossible to avoid the conclusion that flank attacks supersede all others

for the real decision of battles. Front attacks must be made, of course, to hold the enemy fast, and we now come to a very important conclusion based upon the rapidity of fire from breechloaders. *If an enemy attacks us boldly in front and we reply by a simple defence, it is almost impossible to know his strength, or to be sure that he is not very weak in front and massing his troops on our flanks.* For, if an equal force can hold its ground with ease against front attack, an inferior one can make the same impression for a certain time and produce an effect more than double its apparent numbers by acting aggressively. Such work was actually done frequently in 1870. Take, for example, the battle of Mars-la-Tour. The object of the Prussians was to hold Bazaine fast and prevent him from making his escape from Metz. The third Corps was the first to arrive in contact with the French Army.

There was no hesitation or doubt about its conduct, though the French were immensely superior in strength. It laid hold of Bazaine's army like a bull dog, and never ceased its apparently reckless attacks, though perfectly certain to succeed in driving the enemy back. It held him fast and though it lost nearly 7,000 men, maintained its position and its hold upon the enemy until supported by the successive arrivals of other corps. It is now a golden rule with the Prussians never to yield an inch of ground, because once yielded it is so hard to regain it. It is recognized that an inferior force in position can hold its own for a long time against front attack—and for this reason, they are not afraid of weakening their front in presence of the enemy, so only that they can use the troops taken away for the purpose of a flank attack.

Closely allied with the question of front or flank attack is that of a system of offensive or defensive tactics. There can be no doubt that almost all the German writers support the

principle of active aggression in war. Yet we find an excellent example of their defensive fighting when Bourbaki attempted to raise the siege of Belfort and make a diversion in the East to assist Chanzy in his march upon Paris. Of course, the whole strategic plan of this movement was ridiculous, but that has nothing to do with the fact that the Germans, very inferior in force, intrenched and defended themselves for three days against all the efforts of Bourbaki's superior army—superior, that is, in numbers, not in fighting quality. But on this occasion the Germans were only doing on a large scale what can be done on a small one. They were only holding their own to give time for the flank and rear attack of reinforcements hurried down to their support from the North.

No army can limit itself to the defensive. Even on the defensive, all that now remains in the power of the commander is to determine the moment at which he shall abandon his absolute inaction, and trust, as he launches his troops into counter attack, to their readiness to conform, and their capacity for conforming, to the essence of his instructions.

The answer to the tactical question of offence or defence is perfectly simple, though its practical application in war is more complicated than ever. If two thoroughly good Generals were placed opposite to each other in command of troops, equal in all respects as to marching and fighting powers, we believe that both of them would act partly defensively. and partly aggressively. Everything else being equal, superior information as to the movements of the adversary would carry the day. Let us suppose, then, that both armies are being extended eastwards, in the endeavour to turn, one the right flank the other the left of the opposing force. We will suppose that A discovers the design of his opponent B. He will neither continue his own movement towards that flank, because it would be useless,

nor will he make a decisive centre attack, because it would be both vain and costly; but he will avail himself of the defensive power of modern weapons by placing a detachment, inferior, perhaps, to the force with which the enemy is attempting to outflank him, in a position where it can defend itself vigorously and for a long time against the flanking force of the enemy. At the same time, he will himself attack the other flank of B's army, not hesitating to weaken his centre for the purpose. His attack may, perhaps, be answered in a similar manner by the enemy, if the latter obtains proper information. Indeed, we have as yet no experience of what will happen when two armies, equally trained, armed, and commanded, meet on the field of battle. If the troops be animated with the same antagonistic spirit of race which possessed the French and Germans during the late war, we can well conceive that the result may be bloodier than that of any action yet known to history. There may, evidently, be special occasions when a distinct offensive or defensive part must be played, as with Alvensleben's corps at Mars-la-Tour or the Germans near Belfort when attacked by Bourbaki; but, as a rule, when the forces are anything like equal, we believe there must be both attack and defence on either side. Two great powers—one moral, the other intellectual—are always on the side of the assailant. The spirits of men rise with the sensation of attacking. An enemy on the defensive seems by that very defensive action to be hiding, and therefore inferior in numbers or courage, and the assailants feel that they are making the battle, or at least giving its tone. The other power is that of actually carrying out your own plans while checking the development of those of the enemy. Both of these are very strong in favour of the attack, and we may add a third, which springs out of them. If attacked, you know not what is behind the enemy's first arriving troops; if you attack, you soon find out the weak

points of his harness. Defence, to be of any value, must at some period or another be changed into counter attack.

No greater proofs of the difficulty of front attack could be cited than the blockades of Metz and Paris, and the battle of Sedan. In these three cases the action of the Germans was eminently aggressive to begin with. All their marching powers, all their courage and aggressive faculty were used at first, and only by means of their aggressive action vigorously carried out for days together did they succeed in placing themselves in that strategically offensive, but tactically defensive, position where the enemy must attack them in *front*, for there was no flank to attack.

The vital necessity is that, above all things, an army should be fed well and able to move fast. It seems quite out of the question to supply a large army entirely from its base. The Prussians hold that such a system would be utterly impossible. The French are of the same opinion, and other nations must imitate them or be left behind in a campaign.

The three most necessary articles are food, including tobacco, ammunition and boots. The experienced soldier will carry any additional weight rather than go hungry.

The Prussian Etappen Department, acting upon regulations made in 1867, after the experience of the Bohemian campaign, includes among its duties much more than accumulating stores and supplying them to the fighting forces. It is responsible for the condition and the safety of all the means of communication between the armies in the field and the country whence they originally marched.

At the head stands an "Inspector-General," holding the rank of General of Division. He is always in direct communication both with the Commander of the Army and the Minister of War, who remains behind. He has nothing whatever to do with the strategical march of the various corps

until they unite under one command. All that is the business of the Corps Etappen Departments and of the wonderful district organization; but the Inspector-General takes them up at the point of concentration, and begins even before they arrive to form his magazines and dépôts, which are to extend in a chain from the base of operations to the army in the field, no matter how far it may march. As the army advances he follows it, always one or two days' marches in rear, but in constant communication with its Commander, under whose orders he acts, being kept acquainted with his councils. He fixes each day the head of his chief Etappen line, taking care that it is within reach of the transport belonging to each corps, and they shall find there whatever they may need; that the postal and telegraphic communication is kept up regularly, and that he has troops enough with him—generally Landwehr—to assure the safety of the roads without the assistance of a single man from the fighting corps. He has little to do with details of execution, only watching carefully that all the duties of his subordinate officers are performed with energy and intelligence. He has under him:—

1. A Chief of the Staff, whose title indicates his duties.

2. Three Adjutants; the first responsible for the military organization, the guards of the roads, the correspondence with the commander of the army, and all questions relating to the *personnel* of the department. The second watches the position of the various corps and detachments, takes charge of their field-states and reports, attends to transports, convoys, prisoners, and horses. The third performs the duties of a superior aide-de-camp. All these attend to the office work, keep the journal, &c.

3. An Officer of Gendarmes directing the provost duties.

4. An Auditor responsible for all affairs of justice.

5. An Officer of Artillery. His business is with everything relating to arms. He is in charge of the parks and ammunition columns, establishes workshops, collects arms, &c., from battle-fields, and is generally responsible for the supply of military material and all repairs too heavy to be executed by the artificers of regiments and batteries. He has a considerable staff of soldiers and workmen under him, and full power to make requisitions for whatever he wants.

6. An Officer of Engineers, who directs and carries out all duties relating to construction or demolition of field works, roads, railways, bridges, barracks, huts, telegraphs, provisional hospitals, and other works of the same kind.

7. A Director of Railways, who must be fully competent to act as manager of a line with all its branches, as well as to superintend and direct the engineering part of the work. He has a large staff under him, and is responsible that lines destroyed by the enemy are in working order as soon as possible. If he wants help, he makes requisitions through the medium of the Inspector-General for men, civil or military, or for material. The cost of repairing a line in the enemy's territory is, with the usual Prussian economy, paid out of requisitions made upon the people. When the lines are restored, the Director of Railways works them through commissions appointed under his direction. As far as can be, the old servants of the line are made to work it under strict supervision. A regular railway guide, a sort of comprehensible *Bradshaw* on a small scale, is printed, but room is left for special trains conveying stores and reinforcements to the army, damaged material, and sick and wounded. There is a system of regulations imposing punishments touching purse or person on the inhabitants of the district in case of damage to the line.

8. A Director of Telegraphs. He performs with regard to the telegraphs the same functions as we have just described

in relation to railways. Whenever the army rests for a while, each corps is placed in telegraphic communication with the general head-quarters, and through them with the Fatherland and the world. In this case the *personnel* of the field telegraphs falls temporally into the hands of the general Director.

9. A Director of Posts, who takes up the postal work between the nearest railway station and the army or within a day's march of it, according to circumstances. The duty of sending letters and parcels from Germany, as far as the railways can carry them, belongs to a central administration common to all the armies in the field. The Director of Posts for the army establishes relays on all the roads, requisitioning horses for the purpose. The one day's journey between the corps and the Etappen Post Director is managed by the field posts.

10. An Etappen Intendant. The work of this officer is one of very great difficulty. He has not only to secure the provisioning of all the Etappen *employés*, but to be always ready to supply to the army any provisions or clothing of which it may stand in need for the moment. For this purpose he has to establish magazines at the most important places, and to sweep the whole country round for contributions. The system of requisition is well known to be the backbone of Prussian supply.

It would be a great mistake to suppose that the railways in an enemy's country can be entirely trusted to as in peace manœuvres for the supply of an army.

In an enemy's country the railways are always in danger of being cut. The trains must therefore move slowly. Furthermore, besides empty carriages returning, there are frequent and sudden calls made upon the railway for conveyance of wounded. The result is that not the railways but the roads are still regarded as the main arteries through which must flow the life-giving requisites of the army.

With regard to the great staff of life—bread, the Prussian instructions of 1870 foresee that when the army is making rapid marches it cannot well employ its field ovens. In such a case the Etappen Intendant has to pursue it with three sections of bakeries, one of which only is at any given moment actually supplying bread to the troops. It is supposed that to establish bakeries sufficient for a large army and to set them fairly going requires three days. For another three days the section bakes as much bread as possible and sends it on to the army, it then breaks up and spends three days in catching its army again. We have thus three periods of time during each of which one section is installing itself close behind the army. Another further back is baking bread, as fast as it can, while the third is on its road to rejoin the army.

The Etappen Intendant supplies hospitals as well as marching troops with food and clothing, and takes care of all the love gifts for the sick sent from the far off German home.

11. An Etappen Surgeon-General. His duty is to establish all the necessary hospitals in rear of the army, to arrange with the commissions all the transport and evacuation of the wounded. He directs the reserve of ambulances and supplies assistance, voluntary or otherwise, to the army when required. He has to see to the comfort and repose of the wounded sent from the front, and establishes resting places as well as convalescent hospitals where lightly wounded or over-fatigued men are received, carefully tended, and when sound again sent back to their corps.

12. A veterinary surgeon, who has to care for the horses just as the Surgeon-General has for the men. The only point worth special notice is that there are no such curious animals as dismounted cavalry with the Prussian army in the field. If there are spare men after battles or from any other cause, they are supplied with horses from the Etappen Department,

which, on the other hand, takes charge of any horses becoming useless to the army by reason of deficiency of men.

So far we have spoken only of the General Etappen Department of the army, but all the organization of this Department would fail in two essential particulars were it not supplemented by another organization carrying out the principle of decentralization, furnishing the blood which, as we have said, flows along the main artery, and then distributing it to the various members—the *corps d'armée*. This second organization is so complete in itself that it can at any time be detached from the Etappen Department of the army and work the communications and supply of each corps separately. We must never lose sight of the fact that the whole force of the German organization lies in the district corps system. From the districts come the various articles required by their own corps and not to be found in the enemy's country. For the collection and final distribution of these stores every corps has an Etappen system exactly analogous to that of the Army Etappen Department, only the *employés* are each one step lower in rank than the corresponding functionaries of the army. For instance, the Corps Etappen Inspector has the rank of a commander of a regiment and has two adjutants. When the different corps are acting together he remains with the Army Inspector and takes orders from him, but if the corps is separated from the others, he acts independently, and falls at once under the orders of the corps commander—under his orders most distinctly. The only body he "controls" is his own department; and there is no such thing as the commander of an army or corps asking his Etappen Inspectors, "Can you provide the means to enable me to perform the operation I have in view?" He simply says, "I am going to march or fight a battle, you must be prepared for certain probable contingencies and for others not so probable. You must anticipate the requirements of the army according to your knowledge

and past experience. If I want anything take care that it can be supplied. » Beyond watchfulness not to be cut off from his communications the General has no further anxiety or trouble about them. That care falls upon the Etappen Inspector, who has even the troops necessary to guard his roads and railways against the attacks of any small bodies of the enemy. He has force enough to overawe the occupied territory, to perform the duties of police throughout it, and to establish garrisons, small, perhaps, but enough considering that his own friends are in front of him. Thus the further the armies penetrate into an enemy's country the larger becomes his command, which, confined at first to the few men necessary to perform duties at head-quarters, grows by being fed from home till whole provinces are covered with his soldiers and agents, while the commander of the army need never so much as look over his shoulder to see that all is right in rear.

It is by no means clear that the Prussian system of « mobilization » in certain conditions would not prove faulty and even dangerous.

MacMahon had placed the French right wing in position at Woerth, and trusting to the support of De Failly, about a march distant with the 5th French Corps, awaited the attack with perfect confidence. The position of the Marshal was very strong, but it admitted of a passive defence only, MacMahon like all the Imperial chiefs having adopted a system in all respects opposed to the traditions of the French Army.

From a tactical point of view, the French army occupied the ideal of a defensive position ; but it had the disadvantages common to so-called unassailable positions.... First, the position was deficient in issues to the front ; an attack upon it might in the worst case be repulsed, but a counter

attack to the front was scarcely to be feared.... Secondly, the flanks were not supported. His right flank was more or less in the air ; his left rested on that most doubtful of all points of support to wings—a wood.

The French Army has seldom shown more heroism than on the day of Wœrth. MacMahon, unaided by De Failly, had not five whole Divisions on the field, not more than 48,000 men ; yet with this comparatively small force he successfully baffled for many hours the attacks of nearly three German Corps, not less certainly than 90,000 strong, and even had a marked advantage for a time. The defects, however, of a system of passive defence revealed themselves as the day wore on ; and when the German reserves came up, not far from two additional Corps, it became possible to turn both his flanks and to overwhelm him with irresistible numbers.

If MacMahon had safely crossed the Meuse, he would have been intercepted by the Crown Prince of Saxony, and in that event the whole Third Army would have assuredly closed on his rear, and the catastrophe of Sedan would have happened a few leagues to the east or south of Montmédy. In fact, under existing circumstances, MacMahon's march was a ruinous error, contrary to the simplest principles of the art of war ; and no one knew this better than the Marshal himself, who, as early as the morning of the 27th of August, desired to abandon his fatal course, and to fall back by the Oise on Paris.

A glance at the map will show how insane was the conception of making an army describe a vast semicircle of which the Crown Prince of Prussia held the centre with 180,000 men, and at the end to encounter in succession the Crown Prince of Saxony, with an army of 70,000 men, and the two armies of Prince Frederick Charles, 200,000 strong, at Metz.

The head of the German armies, when apprised of the

results of the battle of the 14th of August, addressed himself, without hesitation or delay, to the means of turning them to the best advantage. Though not aware of the exact facts, he felt assured that the Army of the Rhine would now endeavour to escape from Metz; and he thought it probable that he should be able to baffle its leader's assumed projects. He did not yet entertain a hope of hemming Bazaine in on the Lorraine fortress, but he believed that it was now in his power to separate him finally from MacMahon; and, adhering steadily to his original design, he prepared to cut him off from Châlons and Paris, and, if possible, crush him on his line of retreat.

According, therefore, to this project, the 3^d Army continued its march, and it attained the line of Toul and Nancy by the 16th of August, stretching thence backward beyond Luneville. Meanwhile the movement upon the Moselle was accelerated in every possible way; and while the rearward corps of the 1st and 2^d Armies were still held on the eastern bank, the vanguard was hastened across the river, with general directions to the commanders to push towards the roads from Metz to Verdun, and to operate at their own discretion, but with the greatest possible speed. These orders were executed with energetic zeal, and by the evening of the 15th of August the 3^d and 10th Corps of the 2^d Army had made their way over the river in force, preceded by two divisions of Cavalry, while the 9th Corps and part of the 8th of the 1st Army were near the stream in the space between the Moselle and the Seille. By these dispositions a German force was placed on the westward bank of the Moselle, within reach of the roads from Metz to Verdun; and it might be expected to prove sufficient to intercept stray columns on this line, and to form the head of a great pursuit northwards. The mass, however, of the 1st and 2^d Armies was still far away on the eastern bank; the 7th and 1st Corps

to the south-east of Metz; the Guards, the 4th, the 12th, and the 2^d Corps extending from Dieulouard to Herny, and therefore at a very great distance; and accordingly the divisions on the western bank could not expect support if at once assailed, and were to a considerable extent isolated. A glance at the map, indeed, shows that these bodies were very far apart, to resist the efforts of a powerful army that should endeavour to march from Metz on Verdun. The cavalry only had approached the Verdun roads; the 10th Corps was many miles away; and so, also, were the 9th and 8th; and the 3^d alone was in real proximity. It is evident, therefore, that the German chiefs, according to ordinary military rules, had not barred the retreat of the Army of the Rhine on the line leading from Metz to Verdun, much less on any of the routes northward; in fact, their objects had been different; and, should Bazaine attack in force on the 16th, he would have many chances in his favour.

Such were the dispositions of the Germans, carried out with conspicuous vigour and rapidity, yet not perfectly in accord with the facts, and not without danger, had the French had a real leader. The whole of these movements had in view the pursuit of Bazaine north of Verdun, and did not contemplate his army being in force on the roads between Metz and that place; for, in that event, the Marshal would have a great preponderance of strength on his side. The fact affords a new illustration of the important truth that Generals, often obliged to act on incorrect data, first into what, judged by the event, are errors, however excellent their plans in the main may be. While the German hosts had thus been advancing across the Moselle by a wide sweep round Metz, Bazaine had been endeavouring to get his Army free from the great fortress, and thence to effect his retreat westward. Having lost the precious day of the 13th of August in halting between opposing schemes, he had fought a battle

on the 14th, which had led only to disastrous delay; and the probability that he would make his escape without molestation on the part of his foe was growing fainter from hour to hour. Yet it is now certain, as these papers prove, that he had still the means of making his retreat; nay, fortune was about to give him a chance which a great soldier would, perhaps, have made productive of very fruitful results. On the afternoon of the 14th, and throughout the 15th, the retrograde movement of the French went on, and by the evening of the last-named day the 2^d and 6th Corps and the Imperial Guard were concentrated beyond Gravelotte, on the uplands which spread around the villages of Vionville, Rezonville, and Mars-la-Tour. The 3^d and 4th Corps had, meanwhile, defiled through Metz and crossed the Moselle; but these divisions of the Army of the Rhine, having been those chiefly engaged at Borny, were fully twelve hours behind their comrades, and it was not until the morning of the 16th that they had taken their positions north of Gravelotte, near Villers-les-Bois, Marcel, and Doncourt. There can be little doubt that, viewed in the abstract, this movement had not been well conducted; and, as to retreat and avoid the Germans should have been the principal aim of the Marshal, he ought to have divided his columns, and have sent one detachment by the road to Briey, and so have made his march more easy and rapid. But, in the actual position of affairs, the Army of the Rhine was very well placed; nay, its chief had a real opportunity which he might have turned to great account. Five French corps, fully 110,000 men, were now gathered within a small space and perfectly in communication with each other along the direct roads from Metz to Verdun; and they still formed a magnificent force, equal, if well directed, to the most gallant efforts. This great Army, therefore, was on a line on which Von Moltke did not expect it in anything like imposing numbers, and which he had

not even nearly barred; and was it to be arrested in a decisive movement by the comparatively feeble and divided foes who alone could throw themselves across its path? Were a few thousand horsemen and the 3^d German Corps, resting on supports at a great distance, to paralyze Bazaine and his dense masses? Nay, had he not the means of making his enemy suffer heavily in his advanced position, of attacking him with largely superior forces, and of opening triumphantly his way to the Meuse after a struggle which ought to have given him victory? No candid student of war will deny that the French Marshal had, on the morning of the 16th, a golden occasion which a true leader would not have allowed to pass unimproved away.

These operations on both sides led to the great battle of Mars-la-Tour, the most remarkable in the whole campaign. In the early morning of the 16th of August the advanced guard of the German cavalry, which had reached the great road from Metz to Verdun, about Tronville and Mars-la-Tour, surprised and drove in the French outposts, and ere long had spread in a wide circle to reconnoitre the French position. In a short time the two Divisions of the 3^d Corps appeared on the field, and falling on the corps of Frossard, defeated at Forbach, they forced the enemy back a long distance, and captured the two villages of Vionville and Flavigny, which gave them important points of vantage. The 6th French Corps now came into line, and had it put forth its whole strength and been sustained, as it might have been, by the 2^d and the Imperial Guard, the united mass must have broken through and through the Germans, and crushed them. But Bazaine obstinately clung to the belief that he would be assailed in flank and rear by enemies advancing from across the Moselle through the woods and that covered his left, and conceived that his object should be to keep up his communications with Metz,

and, accordingly, he permitted a part only of the 6th Corps to take part in the fight, and, withdrawing the 2^d Corps from the field, massed it with the Guard and the rest of the 4th in strong positions around Gravelotte, thus removing from the struggle the very forces which, if properly used, ought to have given him victory, in order to meet a fancied danger ! The 6th French Corps gained some slight success. By this time it was 3 o'clock, the struggle which the French Marshal ought to have made a victory being quite undecided. At the news that its comrades were engaged, the 10th German Corps was pushed to the field by Prince Frederick Charles.

Meanwhile, however, the 3^d and 4th French Corps had been summoned by Bazaine to the fray ; and these detachments, which, being near at hand, ought to have been in line in the forenoon, and to have literally annihilated the 3^d Corps, were in time to confront the newly-arrived enemy. The battle now spread far away eastward, and the villages of Mars-la-Tour, of Tronville, and Bruville were the theatre of a stern encounter, in which, however, the preponderating force of the French gave them a marked advantage. But here, again, the General-in-Chief interposed in the most disastrous manner ; the leaders of the 3^d and 4th Corps received positive orders to hold their ground only. Prince Frederick Charles, who had arrived on the field, employed his reserves to the last man. Meanwhile the attack which Bazaine had dreaded many hours before it could have occurred, had been developed to a certain extent, and parts of the 8th and 9th German Corps, marched to the scene of action with great rapidity, began to menace his left flank from Gorze and the adjoining district. This caused the Marshal to draw in his line, and night ended a desperate battle. The 1st, the 3^d, and the 4th French Corps showed themselves worthy of their old renown ; and the French cavalry, though

thrown away, as at Wœrth, against unbroken infantry, displayed splendid though fruitless valour.

Twice on the 16th, Bazaine let victory elude his grasp; and, had he moved his reserves against the weak 3^d Corps, as it stood isolated in the midst of foes—nay, had he afterwards boldly engaged his 3^d and 4th Corps against the 10th, his antagonists could hardly have escaped defeat. Instead of this, he withdrew the Imperial Guard and the 2^d Corps to cover his left, when not an enemy was even near; he opposed a weak screen to the 3^d German Corps, and gave time to its supports to come up; and, after having throughout the day stood on a feeble and timid defensive, he paralyzed his 3^d and 4th Corps, and held them back at a decisive moment. In other words, he made no use of more than half his army on the field of battle; he so placed it that it was not in force at any time at the important points; and throughout the day he evidently had no idea of the inferior strength of the enemy, no conception of what he might have accomplished, no thought but of fighting when brought to bay, and making sure of his hold on Metz, to which he clung as to a plank in a shipwreck. This was the paramount cause of the defeat of the French.

A great commander might even yet have, perhaps, opened his way to Verdun by a desperate effort on the morning of the 17th: The Germans were happy in having such an antagonist. Von Moltke had good reason to thank Fortune at Mars-la-Tour. It is a mistake to suppose that the operations which ended in the surrender of Metz were the result of a preconceived design; and in this respect they are not equal to the strategy which encircled Mack in Ulm. The German commanders were not omniscient, and their antagonists had more than one chance. The German chiefs underrated the resistance of France.

The battle of Coulmiers was nearly being a serious re-

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verse, and spread anxiety through the German camp; after that event, the fall of Metz probably alone prevented a remarkable change in the scene. The Germans strengthened their hold on Paris, and looked out anxiously for the fall of Metz, which would set 200,000 men free to support their feeble investing line, and to overpower the new French levies. Meanwhile France made astonishing efforts, to repel the invaders; and in the South especially the Army of the Loire became a large force. Even after the calamitous surrender of Metz, the Germans felt that they were insecure, and the First Corps was left around Orleans completely isolated, as no troops could be detached to its aid from Paris.

The German authorities were not able to make a definite disposition of the inconsiderable forces that remained at their disposal after deducting the Army of Prince Frederick Charles, which was on the march. It was, indeed, a critical period, and any prolongation of it was viewed with impatience at Versailles.

In this state of affairs the Army of the Loire, now composed of the 15th and 16th Corps, crossed the river in the last days of October, the mass of the army by Blois and Mer, and one detachment advancing on Gien, the object of D'Aurelle being to cut off and overwhelm the First Corps by a concentric movement against Orleans. General Von der Tann advanced to Coulmiers and Baccon, and this movement led to a collision between the First Corps and the new French army.

Between 3 and 4 p. m. General Von der Tann became convinced of the necessity of adopting one of two alternatives, either to hold his position till nightfall, even if it cost him his last man and his last cartridge, or to retire... He issued orders for a retreat towards St. Peray and Artenay.

The success of Coulmiers not only sent a thrill of rapture through France, but caused profound anxiety at Versailles, where the dangerous position of the investing army around

Paris was fully apparent. Preparations were made to raise the siege; the Grand Duke of Mecklenburg was despatched with two divisions to the aid of the First Corps; and though Prince Frederick Charles was approaching the Yonne, it was feared that the victorious Army of the Loire would move to the relief of the capital by the circuitous route of Dreux and Chartres.

Whether the Army of the Loire could have made this march, and what, if it had, would have been the result, can now be only matter of surmise; but the German Chiefs were not a little uneasy, and the fact shows how unexpected had been the revival of the military power of France. One thing is certain, that at this juncture nothing but apprehension of Prince Frederick Charles prevented even the cautious D'Aurelle from making the attempt to advance on Paris; and, if so, who shall pretend to say what effect the capitulation of Metz—that dark episode of treachery and shame—may have had on the final issue of the war? For some weeks after the battle of Coulmiers the operations of the Germans were far from coherent, and the consequences showed themselves in their strategy. Though the Army of the Loire had retired on Orleans, the Staff at Versailles continued to fear that it yet might push forward by Dreux or Chartres, and the result was that the Grand Duke and Von der Tann were despatched far away to the Sarthe and the Eure to guard against this supposed movement. This diversion, which opened a wide interval between their forces and those of Prince Frederick Charles, might have given a great chance to a more daring chief than D'Aurelle—a chance perceived by the capable Chanzy. Few passages in the war are more worthy of notice than the rallying under Chanzy of the left of the Army of the Loire, and how, aided by an additional corps which had risen suddenly, as it were, from the earth, he baffled the Grand Duke and Van der Tann.

During the following week Chanzy, in position in the space between the Loire and the Forest of Marchenoir, resisted all the attacks of the enemy, and more than once gained a marked advantage.

The tenacity and endurance with which the troops made their stand for four days is a proof of the conspicuous energy and inspiring activity of their leader, General Chanzy... Modern history offers no instance of battles so completely fought out as those on the plains of La Beauce.

It is by no means now so certain that on future battle-fields Cavalry cannot be turned to account. The natural tendency of the breechloader is to cause great dispersion among Infantry and immense waste of ammunition. Moments are certain to arrive in every great battle of the present day when troops find themselves dispersed and scattered, very likely distant and separate from their reserves, and not at all improbably with their ammunition expended. In these circumstances the sudden appearance of a large force of Cavalry at a critical moment may turn the fortunes of the day, more especially when Infantry is demoralized, fatigued, or surprised. At the battle of Custoza a squadron and a half of Austrian Lancers came across an Italian brigade of five battalions, and completely routed four out of the five. But more especially when Cavalry is opposed to Cavalry do heavy men protected with cuirasses and mounted on heavy horses become useful. Light and medium men, not so protected, cannot face them. In fact, the Heavy Cavalry of an army is required to protect its light horsemen from the Heavy Cavalry of the enemy. It may, therefore, seem worthy of consideration whether all Heavy Cavalry should not be armed with cuirasses.

The fire of a Battery at the present day (and we hope soon to outdo this) begins to be effective at 4,000 yards, is very powerful at 2,000, and annihilating to troops in any forma-

tion at 1,000 yards and under. The ground must, of course, be supposed to be moderately open.

A gun in action under favourable circumstances covers with its fire about seven square miles of country, and can change its object from one point to another more than four miles distant from the first by a simple movement of its trail. A column on the right flank may be hit, and within a minute another column four miles to the left of the first. 100 guns would occupy a mile, and a mile was once a long range, but now a line two miles long might fire at the same object, and the guns at one end could protect those at the other by flanking fire. Therefore every increase of range lent a new argument for the tactics of massing.

A General should endeavour to obtain a superiority of Artillery as early as possible. His whole, or nearly his whole, force of guns should be pushed well forward and massed at the beginning, so that it may crush the enemy's Artillery in detail as the latter comes into position.

Whether acting offensively or defensively, artillery can protect its own front in ordinary open country, and should not retire before Infantry unless the whole force is retreating.

But Artillery can be sorely annoyed, or even caused to retire, by the fire of Infantry skirmishers, well concealed in folds of ground or behind walls and trees. Therefore Infantry should not attack in any formation, but, so to say, stalk the guns. And this being granted, Infantry should always attack guns; who knows but that they may be unsupported?

The only reply to such hidden attacks, early in the battle before the friendly Infantry has come up, is by the use of dismounted Cavalry, or, better still, by mounted men trained to work on foot either as riflemen or gunners, and permanently attached to the batteries.

Since Artillery can take care of itself, provided its flanks are protected, a line of guns may be deployed, and behind

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it the Infantry may effect turning movements to act on the enemy's flank. When such a flank attack is ready to be delivered, the mass of guns should concentrate their fire on that part of the enemy's line about to be assailed till it is shaken.

A system of signals should be used to enable a large number of guns to act simultaneously against the same point.

When the Infantry combat has commenced, as many guns as possible should be pushed close up to the enemy.

When Artillery advances to close combat, a considerable number of men and horses should follow the batteries as near as they can consistently with keeping under cover. If this be done, there is no fear of leaving the guns in the hands of the enemy. At such moments cover becomes a secondary consideration. Artillery, like Infantry or Cavalry, in close combat must count on heavy losses in men and horses, but they must determine to crush the enemy in that part of the field, remembering that « omelettes are not made without breaking of eggs. »

Since a frontal attack can be beaten off at any range, artillery, if it has a clear space of 1,000 yards in front of it and scouts on flanks, should not allow itself to be turned from its immediate purpose by the reported approach of large bodies of infantry. Such attacks may be neglected till the enemy comes within 1,000 yards.

Range-finders, telescopes, and scouts are indispensable to the development of the full power of artillery; the same may be said of spare men, horses, and ammunition. The front line of the battery should have as few men and horses as possible, and should be fed from the rear, two or three times over if necessary. But the great principle of all is that artillery has issued from its childhood, and is as well able to shift for itself as any other arm. This does not mean that it is independent of the others, but that it is only dependent

on them in the same sense that they are dependent on it.

The mainstay of an army is Infantry. Command should extend over depth rather than breadth, and each company should provide its own immediate support. This is effected by directing each Captain to extend, in the first place, only half his company, the other half being placed in the front line whenever the Captain may see fit. Thus the mixing up of companies at an early period of the action is avoided. Tactical and administrative command should coincide.

The attack formation is to be assumed as soon as a battalion becomes exposed to artillery fire. The distance necessarily depends on the nature of the ground. In some circumstances it may not be more than a few hundred yards. In open ground the limits are estimated as being 3,000 and 4,000 yards, so great is the range and accuracy of the modern field-piece. The battalion is supposed to be in quarter-column, and before it reaches the zone of effective artillery fire it is deployed into line of half-battalion columns, and on account of the range of shells the front taken up is much wider than that hitherto considered sufficient. Space is allowed as for a battalion in line on the following *data* : — Each file is supposed to occupy 30 inches. The companies are to be separated from each other by an interval of three paces, and half-battalions by one of six paces. Thus not only will half battalions and companies be kept as distinct as squadrons, but each man will have plenty of room for the full use of his arms. As soon as the half-battalion columns have assumed their positions, the two front companies of each will be sent forward to act as the attacking line. Only half of each company will at first be extended, the other half companies being retained at a distance of from 150 to 200 yards in rear, to constitute company supports. The leading half companies will form on the march single rank, the intervals between men being such as to insure the whole front of the

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battalion being covered. The rear half companies will move in two ranks, with two paces interval between files. The front and rear half companies will together be styled « the attacking line. » The captain is to take post in rear of his leading half company. The remainder of the half battalions — two companies in an eight company battalion — will follow in rear of the supports of the extended companies at a distance from them of from 200 to 300 yards, and in such formation as may be deemed advisable. These companies will be styled « the supporting line. » An excellent innovation is the sending in advance of all, at about 100 or 150 yards of the extended line, four or five picked men per half battalion. These, under the direction of an officer, will act as scouts, and will retain their relative position until they approach to within 500 yards of the enemy, when they will halt and lie down till the arrival of the attacking line and then advance with it.

The principle is to evade as far as possible the destructive effect of artillery fire by giving it no masses or bodies of men shoulder to shoulder as targets. The front of a battalion of 800 rank and file, exclusive of scouts, would be 374 paces. Consequently, at first each man in the extended line would occupy a space of nearly two paces, or nearly five feet. Even if a shell burst precisely at the right moment, it would cause comparatively little loss on such a line. The effect of artillery fire would also be very slight on the supporting bodies spread over a considerable depth of ground and, equally with the skirmishers, taking advantages of all cover and being constantly on the move. We may, therefore, conclude that during the earlier part of the advance the enemy's gunners would fire but little. The extended line is to advance quietly, steadily, and without unnecessary words of command or bugle calls, and as far as can be gathered in a general line. On reaching the zone of effective infantry fire the supporting

half companies will reinforce their leading half companies. The precise moment at which this operation may be necessary will depend upon the ground and the amount of resistance encountered, about 800 yards from the enemy's position. No fixed rule can be laid down. Officers commanding the advanced companies should endeavour to approach as near as possible to the point to be attacked before ordering up their rear half companies. The true principle is to keep as large a number of men as possible in comparative safety till the decisive moment, and always to have something in hand. Still, it must be borne in mind that the enemy's fire must never be allowed to gain the ascendancy and snuff-out the assailants in detail. When the whole of the attacking line has been thrown into the fight the supporting line is to be moved up to within 300 yards of the men engaged. At this point of the action a further advance must evidently become difficult. The question then is, how is it to be accomplished with the least possible loss? That many casualties will occur in the process is certain. The object to which attention must be directed is the minimizing of loss. Advance is to be continued by alternate companies. This is so far sound, for if the advance were by smaller bodies, they would be apt to get in front of each other and obstruct the firing line; whereas, if the advance were by larger bodies, it would be difficult to give a simultaneous impulse to them. The rush is only permissive, not obligatory. Thus, captains are practically allowed to advance in their own way. The experience of many officers is that the best method of advancing is for the two men of a file to work together, one running or creeping forward a short distance, while his comrade covers the movement with his fire. By this means the whole line gradually gains ground like an incoming tide. When the attacking line is about 300 yards distant from the enemy's position, it is to be reinforced by the rest of the battalion.

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In many cases, if a battalion succeeded in establishing itself on a line about 150 yards from the enemy the affair would soon virtually come to an end without a further advance. Either the assailants or the defenders would be crushed by the volume of fire poured in at such a close range. Assuming, however, that the loss was not so great as to induce the assailants either to remain halted or to retreat, or to compel the defenders to quit their position, it is evident that a very critical and dangerous piece of work devolves on the attacking party. How is the deadly zone of 100 or 150 yards to be passed over? The ranks of the enemy may be much thinned and their courage greatly shaken. In that case the assailants may, without danger, make a rush over the intervening space. What, however, if the enemy, partially covered by, say, the brow of a hill, should not have suffered heavy loss and be evidently determined to stand their ground? In that case a rush over 150 or even 100 yards would bring the assailants up breathless, in disorder and thinned by the last few shots, to cross bayonets with a halted, regularly formed, perfectly fresh line. It seems, therefore, that the former method of gaining ground by degrees should be prolonged till the attacking line is within 50 or 60 yards. As a matter of fact, however, a front attack on a fairly good position, occupied by resolute troops, would have few chances of success unless the foe were previously shaken by a fire of artillery, or simultaneously threatened on the flank. The advance of Infantry should always be preceded by a concentrated fire of Artillery on the point selected for attack.

In order to minimize the loss inseparable from a front attack, even when the latter has been fully prepared by Artillery, the assailants must have recourse to three expedients—*i.e.*, the nature of formation, quickness of movement, and the taking advantage of cover.

The flank formation is the same as the front formation,

except that only one half battalion is broken up for attack, the other half battalion remaining in rear as a battalion reserve.

The attack formation for a brigade is merely an application on an extended form of the principles laid down for a battalion.

Retirement should be carefully practised. For nothing tests the discipline and general training of men more than a retreat under fire. Indeed, many military authorities are of opinion that if an attack fails it will be almost impossible to fall back without crushing loss and terrible disorder. Is not the method adopted during the advance equally applicable during the retreat?



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MODERN WAR

CONTAINING REMARKS AND OPINIONS OF THE MOST DISTINGUISHED SOLDIERS

In the middle of the year 1877, General Gourko commenced his daring raid.

When Reouf Pasha was engaged with the enemy, Suleiman would not send to assist him, although he was himself amply provided with troops.

What he actually did was to seize Eski Zara, the garrison of which had been weakened, and to keep all his forces about him so long as there was a chance of his requiring them; in fact, to render his own triumph secure at all costs. Suleiman Pasha had superseded Reouf on reaching the Balkans, and it was more than probable that, according to the usual system, Reouf would be reinstated in the chief command should he win his share of the battle while Suleiman lost his. The latter appeared to have determined that this should not occur.

The defeat of Reouf followed in consequence of the non-co-operation of Suleiman. Suleiman next wasted valuable days in Eski Zara, and completely lost the touch of a Russian force which had appeared in his front and reconnoitred him on the 30th of July and the following day. Another delay of several days was suffered at Yeni Zara. When at length the General marched straight on Shipka, two days were lost at the Ferdich Pass. The whole army halted while some slight field works for the defence of the pass were constructed. They might as easily have been made by a small garrison left be-

hind while the army moved on. At Hain Bogaz another delay was made for the purpose of fortification. Had it not been for Reouf's defeat, or even had Suleiman followed up and observed with his cavalry the march of Gourko's column on the Hain Bogaz, the Turks might have advanced from Eski Zara direct on Shipka, which was but one day's march distant.

The delay in marching on Shipka after the defeat of Eski Zara had enabled the Russo Bulgarians to regain confidence and to construct elaborate fieldworks for the defence of the pass. It had also enabled the Russians north of the Balkans to recover to a great extent from the shattering effects of the great defeat at Plevna on the 30th of July and had given time for reinforcements to be hurried up. Thus the Turks had thrown away a great opportunity of hurling back the invading armies. Though everything depended upon rapid movement, Suleiman Pasha had taken three weeks to do the work of a single day.

The later history of Suleiman's army, how thousands of gallant men were squandered by hurling them against positions which turned out to be impregnable, need not be followed. It is deeply fixed in the memory of the public. More useful will it be to refer to the general deductions.

Briefly stated in technical language the principal conclusion is that the local defensive has gained in power; but that, in spite of this, the tactical offensive continues to be advantageous provided that a position is open to turning movements and flank attacks. A force surrounding another in an intrenched camp should blockade, but not assault. It appears to be only occasionally and by accident that long-range firing had any considerable effect. For instance, the converging fire into the Russian positions at Shipka was principally aimed at the front line, and, passing over it, inflicted injury upon the reserves. This remark must not, however, be read as excluding value from the well-directed aim of a few marksmen.

One speedily perceived the great superiority in a country like that in which the campaigns were fought of the use of pack-animals instead of wheeled conveyances to carry ammunition and all supplies. Had the supply of ammunition been carried out by carts, the Turks must often have run short during the fighting on the Balkans. From ten to 20 mules accompanied a battalion, each carrying two wooden cases lined with tin slung on either side of the pack-saddle. A case contained 1,000 rounds of rifle ammunition. Mules also carried the intrenching tools of each brigade. The value of the field telegraph and signalling arrangements was also remarkably shown. On the 23d of August the Turks had just carried a wooded hill in the Shipka Pass, towards the west of Mount St. Nicholas, after a sharp fight with the Russian infantry. The remains of the Russian garrison, exhausted by a three day's fight against superior forces, and their ammunition having failed, could be seen abandoning the main position in the centre, where one battery after another ceased firing.

At length the Russian positions were nearly empty, and only an occasional fugitive turned to fire a parting shot at the attacking troops. The lines were completely at the mercy of the Turks in the centre, who yet did not enter them. Being on the steep slope of the hill, they could not see that the whole position above them had been abandoned. Two Pashas, in command respectively on elevated ground at the flanks, tried to induce the centre to move on. One ordered "Advance" to be sounded; the other sent word to the attacking troops in the centre that the position was deserted. But no movement was made by the force, although the position was 200 yards off. Quick and explicit communication by telegraph, or by flags or mirrors might perhaps have had another result. As it was, 20 minutes of inactivity passed. Then the head of a Russian column came in sight making its way up the winding Gabrova road. It re-occupied the works, and immediately be-

gan firing volleys with great precision. It was evidently composed of fresh troops. Word arrived that the Turkish advance line was being attacked in flank in the wood; the attacking troops in the centre fell back before the fire of the fresh column. Night closed in, and an opportunity was lost which would probably have decided the fate not only of the Shipka, but of the whole campaign. On the 17th of September, when Sulciman temporarily captured the St. Nicholas Rock, the telegraph had been laid between the three advanced sections and the camp; but the commander appears not to have posted himself where he could fully use its services for insuring co-operation by flank attacks and the timely aid of the reserve.

With regard to the later period of the war which resulted in the treaty of San Stefano, the Russians had crossed the Balkans between Sofia and the Black Sea with a real force of only 70,000 men, subsequently increased to a *maximum* of 130,000, encumbered with sick, deficiently provided with transport, and in a condition to be easily deprived of supplies of food after they had exhausted those which the Turkish Generals had considerably left behind. Against them were arrayed 100,000 Turks, and afterwards a greater number, in the strong lines around Constantinople. A body of 50,000 British troops, assisted by the Rhodope insurrection and by fresh levies of Turks which could have been formed to the number of 200,000 to serve under British officers, could easily have repulsed the invasion.

Are her conquests and extension south a source of strength to Russia?

If she took Constantinople could Germany and Austria permit Russia to keep it?

Or, considering their great interests, would these two powerful empires unite their magnificent forces, attack Rus-

sia along her whole western line, push her back on Siberia with irresistible force, and retain vast provinces of her territory to be developed by the rapidly increasing, industrious and persevering Germans?

There is no man who has better encountered and adopted all those rational and well-considered reforms which the lapse of years and altered circumstances have necessitated, than his Royal Highness the Duke of Cambridge, and no man with a quicker appreciation of the exigencies of the times within which he lives. In difficult positions he has shown great ability.

In General Robert's official account of the fight before Cabul he tells us that he « received the greatest assistance » throughout the day from army signalling, under the direction of Captain Straton, 22nd Regiment. » The army signalling seems to have been conducted in sunshine by means of the mirror or heliograph, and at other times with signal flags. Their usual appliances are a pair of flags for day signalling, and a bullseye lantern for use at night. The flags measure four feet square, so as to be visible at some distance, and they are of dark blue and white, with a blue stripe, colours that are very perceptible upon a mountain ridge or distant mound. By posting a chain of these signallers, communication may be established between a general and his outposts without difficulty, and evidently General Roberts was enabled by the efficient working of this system at Charasiab to obtain ready reports of all that was passing around him. In visual signalling the Morse code is that usually resorted to, but beyond this the army have certain signs of their own to be adopted in cases of urgency and danger. Signalling is naturally a service of some danger, and in this, as also in the last, Afghan

campaign several isolated parties have been cut off and killed by the hillmen and warlike tribes that hang about the flanks of our army. Signs made by flag or lantern cannot very well be seen for more than a mile or so, even when a telescope or binocular is used, but with the heliograph, which reflects a beam of sunshine by way of signal, a distance of fifty miles may intervene between the stations. In this case, all that is necessary is to have the stations sufficiently high above the plain to prevent the interposition of objects in the path of the ray, and to see that the flashes go straight in the direction you wish. It is interesting to find our system of army signalling so perfect as to call for the warm praises of a general upon the field of battle, and it is not less welcome news that Sir Frederick Roberts, who, as quartermaster-general in India, was the first soldier to recognize the utility of the heliograph, should have personally derived so much benefit from its use.

How useful the heliograph has proved every one who has followed the recent campaigns in the East knows.

General Roberts, during his march southward, was enabled to communicate by its means with the forces he was about to relieve.

At all times the service is one of extreme danger in an enemy's country. To signal to a distance it is necessary that the mirror should be placed as high up as possible, and mountains or hills afar off from the main body are frequently chosen for stations.

General Roberts's march and speedy and thorough victory class him as one of the great generals of modern times. Assuming the intention to evacuate Afghanistan, the campaign could not have had a more happy termination. British honour and prestige are safe after General Roberts's revenge.

The brilliant advance upon Cabul by General Roberts's small army in October and of the attack on the Char-Asiab

heights the moment they were discovered to be in possession of the Afghans, will always excite admiration.

Any delay or hesitation at Char-Asiab would have added enormous numbers to the defence and brought thousands round the flanks of our army.

The cavalry charge to save the guns on the 11th of December, and the carrying of the Asmai heights on the 14th of December were fine specimens of daring.

But what, next to the brilliancy and daring of the march on Cabul, strikes one most is the quiet and able manner in which all the troops were suddenly concentrated in Sherpur on the afternoon of the 14th of December. Evidently if this had not been done our army would have had a bad time of it, considering the enormous combination against us.

Fortunately, no army was ever richer in daring, able, and resolute officers than our troops in Afghanistan, and recruits, under such circumstances as those in which Roberts's force were placed, rapidly become veterans.

Sir Donald Stewart exhibits a commendable brevity, candour, and honest statement of facts in his despatch relative to the battle of Ahmed-Khel, Afghanistan. It is evident that this battle, in which our forces were outnumbered by the enemy, was the most desperate and critical of the war.

It only lasted one hour in its intensity, from 9 to 10 a. m., but in that time the Afghans exhibited unprecedented pluck, rushing up to the guns, to be mowed down in hundreds.

The enemy's attack having been effectually defeated, their entire body spread broadcast over the country.

The casualties during the engagement amounted to—killed, 17; wounded, 124, of whom nine were officers. More than a thousand dead bodies of the enemy were counted on the field, and their loss is estimated at from 2,000 to 3,000.

Taking into consideration the character of the attack, led as it was by swarms of fanatics determined to sacrifice their

own lives, the conduct of the troops engaged was beyond praise.

The action, though short, must have been a sharp one, affording some scope for the display of General Stewart's tactical skill. Sir Donald showed sound judgment and true generalship.

It is a cardinal rule that at sieges the besieged should lose no opportunity of making sorties in order to delay the preliminary operations, force the enemy to begin his approaches at a distance, and ascertain the real point of attack.

At Jellalabad Sale, though his garrison did not exceed 1,800 men, and the besiegers numbered between 5,000 and 6,000, repeatedly sallied out and beat them.

During the Mutiny it was a common thing for a force half of which consisted of recently raised native levies, to attack four or five times their force of Sepoys, and to beat them in half an hour. Orientals are better at defending than attacking intrenchments, and we feel sure that General Burrow's small force, if behind fortifications, could have kept any number of Afghans at bay, so deadly is the breech-loader in the hands of steady men under cover, and with clear ground in front of them.

Clive and Napier won great victories in the face of equal odds and with no less superiority in arms than we now possess.

Now the extended order, which answers so well against a European foe, with weapons nearly as good as our own, is not invariably the only method which should be adopted in dealing with an uncivilised, indifferently armed, but numerically superior force. In such a case, when pressed on all sides by swarms of daring swordsmen, our men ought to be kept together, for mutual support and encouragement.

There is no real remedy short of annexation for effectually and finally settling this constantly disturbing Afghan difficulty. Annexation would not only cost us no great effort, but it

would be acceptable from the first to many classes of the inhabitants, and would before long be contentedly acquiesced in by the great majority of the nation. The population of the country is not all fanatic, and peace and security for property is, after all, what the mass of the people desire. The revenue of the country was about one million and a quarter under Shere Ali's rule, and if his reign had been prolonged he saw his way to raising it to one million and a half. Good government would, as always, increase this revenue in proportion as trade prospered and waste lands were brought under cultivation. Admitting that our present Indian native army could not bear the strain of military occupation, it is worth consideration if a local force of European (not necessarily British) troops could not be raised, the figure of which could be placed at 20,000 men.

A local service in the excellent climate of Afghanistan would probably not be unpopular or difficult to raise and recruit. It could be supplemented to the extent required either from the non-Afghan races of Afghanistan — the Hazaras Kazilbashis, etc. — or from natives of India selected for this special service, as in the first Afghan war, the true element being gradually introduced. Five years hence, or even less, a scheme such as this, preposterous and wild as it may now seem, will not, perhaps, be deemed unworthy of attention.

If order, again, were once established, the revenue of the country would continuously improve, and it would in an increasing degree pay the expenses of its occupation and government. As to the animosity of the population, there is much to be said in behalf of a belief that this animosity is mainly confined to the possessors of wealth and power. Those classes know that a rule of strict justice would deprive them of their present arbitrary authority over the poorer inhabitants; but the latter class would welcome the establishment of our rule as insuring their deliverance from the constant op-

pression which is the curse of the poor in all Eastern countries.

The Sikhs were the most dangerous enemies we ever encountered in India ; but with annexation they became the most valuable soldiers in the Indian army. It is conceivable that we might similarly enlist the Afghans themselves, and members of their race have certainly done good service in our frontier regiments.

Ayoob Khan undoubtedly owed much of his success at Kushk-i-Nakhud to the superiority of his cavalry, and this proof of the excellence of the Afghan horseman is by no means the first that has been afforded in the course of our campaigns in the country. The superiority of the Afghans was made evident in a marked manner on several occasions during the old war, and there have not been wanting occasions during the present when some tokens were given that the same truth still held good. Both at Purwandurrah, where Dost Mahomed drove our light cavalry from the field and where the English officers alone held their ground to be either slain or wounded, and also at Baba-Vali, where Nott's cavalry, despite the valour of Neville Chamberlain, was routed by the Duranis, it was shown that the Indian sowar is not a match in single combat for the Afghan horseman.

It was the irresistible charges of his cavalry that turned the day in favour of Ahmed Khan at Paniput quite as much as a similar movement decided the Battle of Blenheim.

Undoubtedly, it would be necessary to occupy Mymeneh, Balkh, or Takhtapul, and even Fyzabad, in the event of the Hindoo Koosh being constituted the boundary of our Eastern Empire.

In point of fact, advisable though the occupation of Mymeneh would be as an outpost, as a link between Herat and Balkh, it can in no sense be termed the key of the Herat valley. On the other hand, the occupation of that valley by England is

absolutely essential to the safety of our Indian Empire. The valley of the Herirud possesses the qualities attributed by the First Napoleon to Cherbourg when he called that place « an eye to see and an arm to strike ». Herat is necessary to England, because England could not allow that valley to be occupied by any other power. The richest valley in the world, producing in abundance the iron, the charcoal, the horses, the lead, the corn necessary to equip an army, Herat, in the hands an enemy, would soon become a most formidable basis whence to wage war on India. Probably the present century has not produced a Foreign Minister possessing keener insight into matters affecting the safety of the country than Lord Palmerston. Yet Lord Palmerston waged two wars — the Afghan War in 1838, and the Persian War of 1856 — with the sole view of preventing Herat from falling into the hands of Persia. That able statesman knew well what a splendid base of operations against India Herat would become in the hands of Persia, or of a powerful ally of Persia. The value of Herat to India was most strikingly exemplified during the reigns in Hindostan of the later successors of Baber. Baber was the only conqueror of India who did not enter India by, and who did not secure, the gate of Herat. Baber entered by Candahar. The result showed the insufficiency of the Candahar gate. That gate was wrested from the successors of Baber by the power which held Herat, and India in consequence suffered the two invasions which more than anything else brought the Mogul dynasty to the dust.

Under present circumstances the possession of Herat by England is more than ever necessary to the safety of India.

The late successful march of Ayooob Khan has demonstrated the foresight of those who declared that Herat was the gate of India. Ayooob Khan's invasion was only possible because he marched along a route with his flanks covered by sandy deserts on the one side, by mountains on the other.

When we conquered the Punjab in 1849 we at once enlisted in our service the brave men who had fought so strenuously against us. The result has been most happy. The Sikh element is the most important fighting element in our army, the Goorkhas alone excepted. Had we boldly declared our intention to annex Afghanistan and the northern slopes of the Hindu Kush to the Oxus, and had we then, imitating our Punjab policy, at once raised regiments from the inhabitants of the country, we should by this time have had ready to our hand a fighting power the value of which it would be difficult to over estimate.

The colonists of the Transvaal, no less than Sir Garnet Wolseley, are to be congratulated on the successful result of the operations against Secocoeni. There were not wanting those who predicted that we should find the Basuto chieftain as formidable a foe as the Zulu monarch, and that the capture of his stronghold was a feat not to be attempted by the force at the disposal of the British commander. Many will speak of the proverbial good luck of our youngest general and ascribe all to its powerful influence; but it is self-evident that good management was the real secret of success. In the public esteem Sir GARNET WOLSELEY stands out from his fellows as a man of especial capacity, energy, boldness, and professional skill.

He has the faculty of husbanding and organizing his resources, and using them effectively and at the right moment. He has an aptitude for collecting around him on his Staff a number of men of bright energy like his own, who are keen to justify his selection, and who work together eagerly for the public advantage.

Although it was well known that Secocoeni was in close communication with Cetywayo, fortunately the thin wedge of

British troops at Luneburg and Derby and Wood's intrenched camp at Kambula prevented the northern chieftain from throwing in his lot more actively against us. Raids have been of constant occurrence, and horses and cattle were often carried off from our frontier forts; but Carrington, who seems, like Redvers Buller, a born leader of irregular horse, has generally found means for prompt retaliation. A close reconnoissance of Secocoeni's position was made by Colonel Harrison, R.E., and Sir Garnet Wolseley, on the receipt of his report, determined to resume the offensive.

The attacking force was divided into two columns, the stronger of which was directed to assemble at Fort Albert Edward, a work recently thrown up on Olifant's River, 15 miles to the west of Secocoeni's kraal. It consisted of two 7-pounder guns manned by volunteers from the 80th Foot, two Krupp breechloaders manned by Colonial Volunteers, under the leadership of Captain Knox, R.A., six companies of the 21st Royal Scots Fusiliers, six companies of the 94th Foot, 371 Volunteer Cavalry and Mounted Infantry under Lieutenant-Colonel Carrington, of the 24th, the Rustenburg Native Contingent, 700 strong, and about 3,000 friendly natives. This was styled the Western Column, was under the personal command of Colonel Baker Russell, and was accompanied by Sir Garnet in person. The Eastern Column was directed to assemble at Fort Burgers, and was under the command of Major Creagh, of the 80th Foot. It comprised two companies of the 80th, two of the 94th Foot, 100 Colonial Mounted Rifles, 400 of the Eckersley Native contingent, and 6,000 Swazis, the total force employed being 1,500 Regular Infantry, 470 Colonial Horse, two Native Contingents 1,100 strong, 3,000 natives from the surrounding country, and 6,000 Swazis, or a grand total of about 12,000 men with four guns. Secocoeni, it was assumed, had about 5,000 men, all fairly armed and occupying a country eminently suitable for defence.

The plan of operations was for the cavalry under Lieutenant-Colonel Carrington to push forward on the night of the 23d and seize a small Hill commanding Secocoeni's water supply, about $2\frac{1}{2}$ miles from the town. This position once carried was to be strongly intrenched, and for the purpose 150 infantry, with intrenching tools, were to accompany Carrington. Two days later the main body of infantry from Fort Albert Edward were to advance to support the force holding the water koppie. The Eastern Column was directed to advance simultaneously along the south-eastern base of the Lulu Mountains, halting about two miles from the mountain spur, at the rear of Secocoeni's town. On the night of the 27th the two columns had taken up their assigned positions within four miles of each other, and at daybreak on the following morning the attack was delivered in three columns. The right attack was led by Ferreira, a gallant Colonial Volunteer, who has done excellent service on many occasions. The central column was commanded by Lieutenant-Colonel Murray, of the 94th Foot, and the left by Lieutenant-Colonel Carrington. Capturing the lower town, this column swept round the hills to Secocoeni's own kraal, just as the Swazis under Captain M'Leod, late of the 74th Highlanders, appeared over the crest of the hill. By 10 a. m. the town and numerous caves around it were cleared of the enemy, and then all three columns converged on the Fighting Koppie, a conical hill with precipitous sides, about 150 yards in diameter, and towering above the surrounding country. It is described as a mass of gigantic boulders, deep crevices, and hidden tortuous caves. The fighting at this spot was sharp, but our troops were not to be denied. Ably seconded by their native allies, they drove Secocoeni's braves from one point to another until at 3 p. m. Sir Garnet was able to telegraph that the far-famed kraal was in our hands. The operations were crowned with the most complete success, and were attended with comparatively slight loss, two officers being killed and four wounded.

It is to free the Egyptians, and not to enslave them, that England has taken up arms; to restore the country to the path of progress, and to give it the prospect of peaceful and orderly development.

It is necessary to rescue an unhappy country from anarchy, oppression and despotism.

But for military reasons Egypt is absolutely necessary to England, and we must keep it and have our own free roads and canals to India at all hazards.

When Sir Garnet moved off in the morning he only intended to occupy a position on the side of the canal opposite to the little village shown on the Intelligence Department map as El Magfar, which lies to the south of the canal about five miles beyond Nefiche junction. He only pushed on with the Household Cavalry under General Drury-Lowe, his personal Staff—that is, Major Swaine, the Military Secretary, Captain Fitz-George, an officer of merit, the private Secretary, and his four aides-de-camp—and two officers of the Army Head-Quarter Staff, Colonel Butler and Major Maurice. Colonel Harrison was also present to look after the line of communications, while General Willis, who commands the division, had command of the force as it arrived. The Marines, 350 strong, and the York and Lancaster Regiment, 560, followed in support, and a division of two guns of N Battery, Royal Horse Artillery, under Lieutenant Hickman, with an escort, brought up the rear, having been pushed on from Ismailia as soon as they could move after being disembarked. On arriving opposite El Magfar a few prisoners were taken and it was found that the enemy had made a dam a couple of miles further up the canal.

The information obtained showed that the enemy were holding in force a position rather more than a mile off, of which the central and strongest part was at Tel-el-Manuta on the railway, while a circular range of hills, forming an amphitheatre of gentle slope and circling completely round Sir

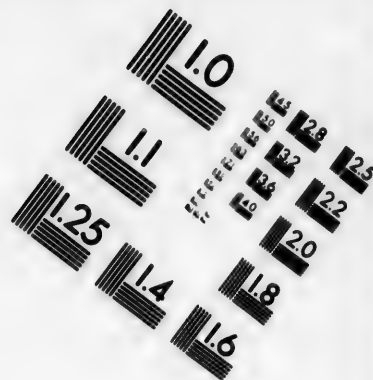
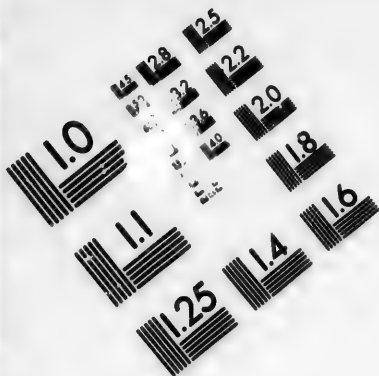
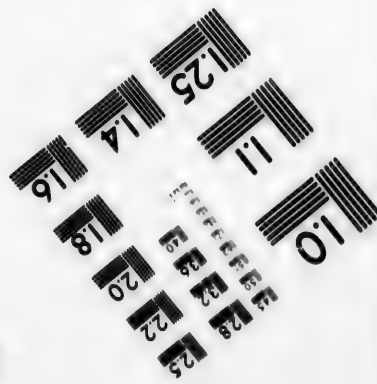
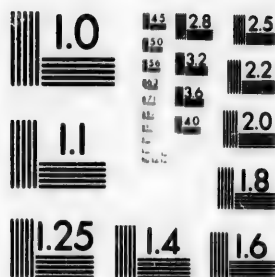


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Garnet's point near the dam to his right at about the same distance all round from him, gave them admirable cover and a well chosen position. They had ten guns in position, about 13- pounders in calibre, and between 4,000 and 5,000 men, the successive trains bringing up reinforcements. Sir Garnet at 8 30 a. m. sent back his aide-de-camp, Mr. Adye, to order up the Duke of Cornwall's Light Infantry from Nefiche, and the Brigade of Guards with the remainder of the Horse Artillery Battery and A-1 Field Battery as soon as they could be pushed forward from Ismailia. Colonel Harrison went back to organize the supply arrangements. The enemy showed a disposition to advance from their position, first coming forward about 7 30 a. m. in a prettily-thrown out line of skirmishers while a cavalry force moved down along both sides of the canal.

About 12 40 the Duke of Cornwall's Light Infantry arrived. And an effective advance of some Mounted Infantry drove back some skirmishers who were showing over the enemy's crest on our extreme right. By 5 the Guards were beginning to show, and the promised Artillery was pushing its way forward. The position was now secure.

During the night the enemy, pushing forward over the crest with his Infantry, withdrew his guns. In the morning, on the first advance of our men, he abandoned the whole position and made a precipitate retreat. The Cavalry cut completely in upon the enemy's line of retreat, and, supported by N Battery, A Brigade, Horse Artillery and two field-guns from N Battery, 2d Brigade, turned the panic-stricken enemy out of their position at Magsameh, and seized seven Krupp guns, 75 wagons of provisions, and 120 tents.

With regard to the expedition, it was not exclusively a military expedition, but essentially at every point of it up to the present a conjoint expedition of navy and army, and nothing more tended to its rapid progress and to the successful

surmounting of the difficulties which attended it than the hearty co-operation of the two services, and the cordial manner in which the naval officers, with the heartiest goodwill, and in the cheeriest way, strained every nerve to co-operate with the army. No doubt the cordial goodwill which exists between Sir Beauchamp Seymour and Sir Garnet Wolseley, dating from an acquaintance as early as the Burmese War (prior to the Crimea), had much to do with this happy state of things, and the larger operations of the war, such as the sudden transfer of our forces from Alexandria to Ismailia, would have been impossible but for the skill with which the arrangements for meeting the risks and dangers of passing down the Suez Canal were devised and organized by Sir Beauchamp. On the other side, too, Sir Garnet's old personal friendship for Sir W. Hewitt substituted the facilities of personal relationship for official correspondence in all naval questions connected with Suez and the Indian expedition. But the same feeling was observable everywhere. Every day and all day long after we seized Ismailia, Lake Timsah was literally crowded with ships, all full of stores, landed day by day by the combined hard work of soldiers and sailors, the sailors being under the orders of Captain Rawson, R. N., the soldiers under those of Sir Owen Lanyon, in his capacity of commandant of the base of operations. Captain Brackenbury was the naval officer chiefly employed in the hard and all important work of landing the stores from the ships and handing them over to Sir Owen's staff officers, Major Sartorius and Major M'Gregor, to receive, distribute, and forward on from Ismailia.

The general situation after the action at Mahsameh on the 25th of August and the occupation of Kassassin Lock next day was somewhat unusual. General Graham, with the Duke of Cornwall's and the York and Lancaster, about 400 Royal Marine Artillery, small detachments of the 4th and 7th Dragoon Guards, amounting together to little over 50 sabres, 70 Moun-

ted Infantry, and two guns of the Royal Horse Artillery, held an advanced position at Kassassin Lock. General Drury-Lowe, with the Household Cavalry, the 7th Dragoon Guards, and the remaining four guns of the N Battery, A Brigade, Royal Horse Artillery, remained behind at Mahsameh, where also was a battalion of the Royal Marines. The Brigade of Guards, under the Duke of Connaught, was still further back at Tel-el-Mahuta, and part of it, perhaps even further to the rear. Throughout all these early days of the advance the Guards worked splendidly and were ably commanded throughout the war by their brave and illustrious Chief the Duke of Connaught. It was impossible for them to be present at the action of the 24th, but they showed the stuff of which they were made by pressing forward through the heat of that day, arriving on the ground in the evening. On the 25th they were eager for fight, but the enemy refused the combat, and after that their spirit and good temper were shown by the hearty zeal with which they carried out the heavy duties of fatigue work, aiding by their strenuous labours the preparations for advance. It is not difficult to understand that the remarkable position of the troops, with, in front, a small advanced guard amounting to less than 1,900 men all told, and two guns, the cavalry, except a few men for outpost work and orderlies, some three or four miles behind, and the rest of the force still further back, was due to the difficulty of conveying provisions and ammunition to the front.

But Sir Garnet Wolseley believed in the courage and vigour of the army under his command, and the ability of the officers whom he had chosen as leaders of divisions and brigades. The result justified his confidence.

There is always great disinclination on the part of the governors of a nation to destroy great public works. Arabi Pasha was urged by military advisers to blow up the Suez Canal, and if he had done so when that advice was given to him

the war might have continued longer. He hesitated, however, until the day before the landing of our troops at Ismailia, and then it was too late.

About haltpast 9 on the morning of the 28th the enemy commenced his first attempt to drive back the head of the British column by direct attack. The position of General Graham was not favourable for defence. His troops were astride of the canal, and although a bridge existed, the separation of right and left wing was partial in any case, and complete if the force had either to advance or retire. Moreover, on the right of the position the desert rose to a ridge some 150ft. high, which might easily conceal the movements of an out-flanking force. On the appearance of the enemy's cavalry General Graham posted his troops under cover, with front to the north and west, throwing out the cavalry and Mounted Infantry on the flanks. At the same time he warned General Drury-Lowe at Mahsameh by heliograph. About 11 his scouts reported that the turning movement which was to be expected was taking place. A strong Egyptian force of all arms was moving round behind the ridge to turn the right flank of the English. At 12 o'clock, the enemy, who was gradually learning from us the points in the game of war, opened fire with two heavy guns which he appears to have advanced along the railway upon trucks, but the range was long, about 4,000 yards, and the elevation given to the pieces was insufficient. The shot fell short, and, as was usual with the Egyptian artillery, plunged sullenly in the sand. The attack was not pressed, and about 3 p. m. Captain Pigott, commanding the Mounted Infantry, reported that the Egyptians appeared to be retreating. General Graham, therefore, withdrew his men from their exposure to the sun, and General Drury-Lowe, who had brought his cavalry within two or three miles of the camp, returned to Mahsameh, having previously been requested by General Graham not to engage unnecessarily. At half-past 4

the enemy made a determined advance with a front of skirmishers extending for at least a mile, and endeavouring to overlap the left front of the English. His 12 guns supported the attack, and thoroughly searched our camp, wounding an officer in the house which had been General Graham's headquarters but had been subsequently given up to the sick and wounded. Remembering that the attack of the enemy was being made on the north side of the canal it is easy to understand General Graham's dispositions. He placed the Marine Artillery on the south bank of the canal, where they could not be turned themselves, but could bring a flanking fire to bear on the enemy's advance. This manœuvre might, however, have turned out disadvantageously if the Egyptian force had succeeded in enveloping the English right, for, in that case, the Marine Artillery would have had the rest of the advanced guard between it and the enemy with the canal between them. In the centre the Duke of Cornwall's, 611 strong, were posted to the north of the canal and about 800 yards back from the Marine Artillery. This infantry regiment extended three companies in fighting formation, with supports and reserves under cover of the railway embankment. The fighting line faced west by north and was continued on the right by the Duke of Cornwall's Light Infantry, with two-and-a-half companies, the remainder being in support and reserve. Thus the disposition of the force was such as to face an attack from the north and west, while its left, on the other side of the canal, was placed in engineer fashion like the flank to the curtain of a bastion. The 800 yards interval between the Duke of Cornwall's and the Marine Artillery was partially occupied by the Mounted Infantry and the small force of the 4th Dragoon Guards dismounted. On the right of all were the troop of the 7th Dragoon Guards and the two 13-pounders, with an additional two which had been sent forward from the rear. About this time, General Graham sent back a message

to General Drury-Lowe saying that he could do no more than hold his own, and directed the cavalry to come up and attack the left of the enemy's skirmishers. At 5 o'clock reinforcements were perceived coming up to the Egyptians by train, and, at the same time, their cavalry appeared to be advancing on the right. The reserve company of the York and Lancaster was, therefore, deployed to meet the attack. For some time the 13-pounders were worked with great effect upon the enemy; but, unfortunately, the ammunition gave out and the guns had to cease firing. No wagons had been brought up by the guns which had joined during the fight, probably on account of the heavy nature of the soil, and the actions of the 24th and 25th had, no doubt, exhausted that which was originally with Lieutenant Hickman's guns. We seem to see here another danger created by want of sufficient transport. If the men could not be supplied with food it is not likely that the heavier ammunition was forwarded to them. Luckily, a Krupp gun, with its ammunition, had been taken at Mahsameh, and was now worked by a gun detachment of the Royal Marine Artillery with marked effect, 93 rounds being expended during the day. This detachment seemed to bear a charmed life. In front of it, beside it, and behind it fell shrapnel bullets and ragged morsels of shell fired in salvos by the Egyptian guns. But not a single man was hit during the engagement. The enemy continued to press the attack, especially striving to break through the gap between the Marine Artillery and the Infantry; but the Mounted Infantry and dismounted Dragoons vied with each other in steady resistance and good firing. The Egyptians were very determined, and even pushed detachments across the canal, which was here 5ft. or 6ft. deep; but they were always driven back by the Marine Artillery. At a quarter to 7 the enemy had been held back so long and so vigorously repulsed that General Graham judged that the moment had come for a counter attack. He believed, also, that by

that time the cavalry charge must be taking place, though he knew nothing of what was actually occurring. Just after the order for advance had been given, the Royal Marine Light Infantry came up on the right from Mahsameh and was directed to advance, together with the Duke of Cornwalls, which were on the left, the York and Lancaster being held in reserve. The enemy made little resistance, and the English foot soldiers advanced two or three miles, the enemy only standing once, when their resistance was overborne by a single volley of the Royal Marines. Not till 8 15 p. m. did General Graham hear of the magnificent and successful cavalry attack.

Gliding along through the night, the Household Cavalry, 7th Dragoon Guards, and Horse Artillery, kept the ridge between them and the enemy until it was time to charge. As they crossed the ridge they were perceived, and a heavy fire was opened upon them, but always too high. The front line cleared out of the way of the guns, which came into action within 400 yards and enfiladed the Egyptian lines. Sir Baker Russell, who commanded the brigade, then gave the order to charge, and took care not to remain behind till his horse was killed under him. Cuirassiers and Dragoons rushed on at full speed, swept through the Egyptian guns, and made great slaughter among the infantry.

How this memorable attack was made and with what success is now matter of history. The suddenness and silence of the approach of the Household Troops, guided through the haze by the flash of guns and rifles; the gallant charge, the instantaneous rout of the enemy's line, the pursuit and the complete defeat of the attacking force; these things have already taken their place in our military annals, and will be pointed to in the future among the striking and even picturesque incidents in the history of the British army. There was a grave fault in the operations of the day, that shortness of ammunition to which we have referred; and doubtless the

responsibility for this will be brought home to the proper quarter. But, as it happened, the fault was not fatal; and the day ended in a brilliant success.

During the next few days little of interest occurred at the front. General Graham was reinforced, and on the 30th, Sir Edward Hamley embarked at Alexandria with the 3d Brigade, and sailed next day, the 31st. The brigade was, however, retained on board ship off Ismailia, merely landing portions of the troops day by day to assist in the work which was going on at the base. The Indian contingent continued to arrive in the Canal, and the whole of the English staff were engaged with whatever troops and workmen they could put their hands upon in laying down a small branch railway from the station to the pier at Ismailia, and in landing engines, while the Naval Brigade placed launches on the Freshwater Canal and carried provisions, ammunition, and stores up to Kassassin Lock. The situation was clearing itself rapidly, and while a portion of public opinion, both at home and on the Continent, believed that the English force was checked, its commander was developing his plans for the attack of Tel-el-Kebir, the very spot on which before leaving England he had laid his finger as the scene of the critical battle of the war. By the 3d the whole of the Indian contingent had arrived in the Canal, including the 1st Manchester, except the 6th Bengal Cavalry, which continued to arrive in detachments up to the 14th of September, one of its detachments having arrived as early as the 21st of August. On the 5th the Sultan's Proclamation declaring Arabi a rebel was issued at Constantinople, and the Convention was initialled on the 6th, when orders were sent to prepare for the despatch of Turkish troops from Suda Bay. Slight reconnoissances were made once or twice by the enemy, and on the 9th Arabi made a reconnoissance in force, with which he was himself present. It was the anniversary of the original revolt, and we cannot but believe

that something more than a reconnoissance was intended by the attack, which was made both by about 8,000 men and 24 guns from the main body and a portion of the detachment which, with feeble strategy, Arabi had pushed out to the terminus at Salahieh. By this time the English were much too strong to be placed in the slightest jeopardy. In the artillery fire the two English batteries and the 40-pounders on its truck obtained a considerable advantage, and on this day especially was proved the great power of shrapnel as a man-killing projectile. Our loss only amounted to 60 killed and wounded, while the enemy suffered heavily. Four or five of his guns were captured, and the hotter spirits among the English were inclined to attribute want of vigour to Sir Garnet Wolseley because he refused to carry, on that day, the lines of Tel-el-Kebir. The same accusation was often pressed against Wellington in the Peninsular War. If Sir Garnet Wolseley had allowed himself to have been carried away by the heat of the moment, he might, indeed, have entered the works, but the Egyptian army would have remained a solid force still ready to dispute the way to Zagazig and Cairo. Not only was he strategically right to bide his time, but the delay probably saved the famous Egyptian city, with its monuments of antiquity which could never be replaced. At the time the action was fought, the Guards were still at Mahuta, and the Highland Brigade, the Royal Irish Fusiliers, at least one battery of Artillery, with two squadrons of the 19th Hussars and part of the Indian contingent were still at Ismailia. Nor were all the requisite provisions, ammunition, and stores at the front.

On Saturday the anniversary of the revolt, a sharp attack on the head of the English advancing forces was made by the Egyptian troops of Tel-el-Kebir. The design of the manœuvre was ambitious, no less than to assault the British force in front and both flanks at the same time. This tactical plan had exactly the same elements of failure as the strategical arran-

gement by which the force at Tel-el-Kebir was weakened in order to send troops to Salahieh. It may be taken for granted that the first line advancing against unshaken infantry not inferior in quality will always fail to penetrate the position, and that the only successful method is to send on wave after wave even at one point so as to submerge it under a tide of men, and open a way through the living barrier. Weak attacks even in flank are sure to be repulsed. Thus it was on Saturday. From the west where lies the main Egyptian position, from the north-west where a range of hills serves to conceal the movements of an enemy advancing from the direction of El-Kalraim and from the north where the same range lies between Kassassin and Salahieh, moved heavy lines of whit-coated soldiery bent upon driving in the front and right flank of the English. The advance began at 7 o'clock in the morning, and about the same time a column moved towards our left flank on the south side of the canal. Without hesitation, General Willis moved out to meet the attack, with so much of his division as was at the front and the marines, who are now under his command. The Guards Brigade moved up from the rear during the day.

According to the reports, the Egyptian General had under his orders and available for the action eight regiments of infantry, 2,000 regular cavalry, and 62 guns, but that force was not brought into the field, neither was the whole of the Salahieh garrison advanced against us. It was said to consist of 7,500 infantry, one regiment of cavalry, and 24 guns, and Toulba Pasha had himself gone to Salahieh in order to make sure of a successful combination. Only 1,500 men were, however, brought up to assist in the attack. The first shot was fired by the 40-pounder on the ironclad truck, and it fell near the trains which were bringing up reinforcements for Arabi. The enemy replied with artillery fire, and thus began a duel on the line of railway. Further to the right, six battalions of En-

glish infantry were drawn up on rising ground, whence two batteries of the Royal Artillery soon opened fire on the enemy. The Bengal Lancers watched the right of the whole line, the line of horsemen being afterwards strengthened by the Household Cavalry guarding the force against attack from Salahieh. On the left the Marines and King's Rifles met the attack from the side of the railway and canal, and supported the 40-pounder on its truck.

The Egyptian commander had choice of his own countrymen for the assault, the black regiments from the Soudan, and seems to have used the latter for the hottest work. These men have the reputation of being the best infantry in the army, and pressed on with some vigour, exchanging a rolling fire with the Rifles and Marines.

The enemy, shrank back from storms of bullets, carrying with them a reserve which had advanced on the south side of the canal. On the centre and right, the English shells tore through the threefold ranks of the Egyptians and forced them to recede, though our guns were always under fire from the enemy's artillery. Slowly and sullenly the whitecoated troops drew back, but not without loss of honour. A small party of Marines dashed out on the troops retiring from our front and captured two guns which had advanced too near the position. In spite of their losses and a heavy list of killed and wounded, the Egyptians from Tel-el-Kebir fell back steadily within their lines, whence shells were afterwards thrown during the day at a range of 5,000 yards.

The detachment from Salahieh showed more audacity and fared worse. It held its ground after the retreat of the main body, and thus enabled General Willis to pay more attention to it. From the accounts given of this part of the affair, it would seem that the Salahieh contingent was met by infantry and artillery fire, and afterwards charged when retiring by the Household Cavalry, who captured one or two guns. Thus

the force which stood longest suffered most and was most thoroughly beaten at last.

It is no doubt a fault to despise one's enemy, but it is a greater evil to over-estimate his power.

Sir Garnet Wolseley in his report speaks of it as a reconnaissance which only became a fight when General Willis advanced. But the number and dispositions of the enemy would seem to indicate an intention of attacking, and it is difficult to reconcile the movement from Salahieh on any other supposition. The engagement probably resulted from one of those halfhearted movements which are intended to strike, but hang suspended in the air so long that the adversary has time to anticipate the blow and strike vigorously under the uplifted arm. If Arabi had attacked General Graham with his whole power on the 28th at once instead of hovering round him for hours, he might possibly have caused some retirement of the advanced guard, however slight. And on Saturday his best chance was to have concentrated for a heavy blow against one flank of the English while only threatening the rest. The small extent of our losses is to be accounted for, as usual, by the indifferent fire of the enemy, who, as we have formerly explained, always fires high, because the men are nervous. It will be observed that the Egyptian artillery practice is better than that of the infantry, because a field gun does not shake, nor can its muzzle be raised or lowered by every tremor of the man who lays it. The best proof of the steadiness of an army is the fire of the infantry, and if a strong force goes through an engagement for some hours inflicting little loss upon the enemy, we may say with some certainty that its quality is very inferior. The reasons may be many. Indifferent training, want of good officers, and above all, carelessness for the object of dispute.

Arabi's attack upon our position was a determined one, and was planned with some skill. The idea seems to have been to

take advantage of his preponderance in numbers by making an attack on the north of our position while directing a mass of troops along the line of the railway and canal.

With commendable promptitude, and, in the outset, no little pluck, he resolved to forestall us in the offensive, striking at our most advanced line before the concentration was completed.

According to prisoners, some of Arabi's crack regiments were engaged, a statement borne out by the white uniforms which only the regulars wear. Arabi was also present in person, and directed the movements. The attacking column outnumbered us at every point, yet a disastrous and humiliating defeat was inflicted, in which the enemy suffered serious losses, while ours were, as usual small.

The Egyptian troops shoot with tolerable precision, and they stand fire very well at a distance. But when it comes to close quarters, whether their assailants be the Household Troops or the Marines, the Egyptians have no chance at all.

But now all was ready for the advance. On the 9th, the day of the action, the head-quarters were established at the front. The Highland Brigade commenced its march. The Guards were brought up, and the whole force with which it was intended to strike was concentrated on the spot by the 11th. The men were allowed to rest for one day.

On the 11th and 12th Sir Garnet Wolseley reconnoitred the two sides of the enemy's position. He saw before him a line of intrenchments some four miles long, soft earthworks with hurdle revetments. At intervals along the line redoubts mounted with guns were placed to deliver both front and flanking fire and connected by trenches. In support of the front line were redoubts which were especially strong towards the right centre of the position, both because they crowned natural elevations and because they had been strengthened by art. The flanks were protected by similar works, an in-

trenched front line and redoubts. They were probably unsailable by cavalry.

The fighting force at the front with which Sir Garnet Wolseley had to strike his blow consisted of the Duke of Connaught's brigade, including the 2d Battalion Grenadier Guards, the 2d Battalion Coldstream Guards, and the 1st Battalion Scots Guards, all worthy representatives of Her Majesty's picked troops; secondly, General Graham's brigade, including 2d Battalion Royal Irish, which already carries the decoration of the Sphinx, and whose long chain of victories extends from Blenheim to the last war in Afghanistan; the 1st Battalion West Kent, a regiment which, now composed of the old 50th and 97th, shares their honours in common, and carries upon its colours 19 names won in honourable fight; the 2d Battalion York and Lancaster, composed of the old 65th and 84th, which have fought in India, Arabia, Nive, Peninsular, Lucknow, and New Zealand; and the 1st Battalion Royal Irish Fusiliers, which amalgamates the honours of the old 87th and the 89th, carries five distinctive marks, among which is the Sphinx, and 14 names ranging from Egypt in old campaigns down to Sebastopol; thirdly, the Highland Brigade under General Alison, which contains the 1st Battalion Royal Highlanders—that is, the old Black Watch of high renown; the 2d Battalion Highland Light Infantry—a regiment which weds together the old 71st and 74th, carries the distinction of the Elephant and no less than 23 honourable names; the 1st Battalion Gordon Highlanders, composed of the old 45th and 92d, bearing as distinctions the Royal Tiger and the Sphinx and a list of 20 battles or campaigns; and the 1st Battalion Cameron Highlanders, the old 79th, which also was formerly in Egypt, and flaunts on its banners 13 historical names.

A fourth brigade was formed of the two divisional battalions—namely, the 2d Battalion Duke of Cornwall's Light Infantry, in which the old 32d and 46th mingle their honours,

so that it carries 16 names, and the 3d Battalion of the King's Royal Rifle Corps, formerly and still the 60th, a regiment which, with its 29 names, might almost bear the motto of the Royal Artillery « *Ubique*. » Of the Royal Marines and Mounted Infantry we only know that they were present.

The whole of the divisional cavalry appears to have been present, and would include under the command of General Drury-Lowe, the Heavy Brigade, led by Sir Baker Russel, which is composed of the Household Cavalry, the 4th and 7th Regiments of Dragoon Guards; the Light Brigade, under General Wilkinson, composed of the 2d Beloochee's, the 6th Bengal Cavalry, and the 13th Bengal Lancers. Besides these, the 19th Hussars, which hitherto has been broken up and attached to the infantry divisions, was, to its great contentment, permitted to accompany the fighting force instead of being left at Ismailia or broken up into small detachments on the line of communications. Part of it was, however, left at Kassassin.

Of the ubiquitous Royal Artillery there were seven batteries massed under the command of Colonel Goodenough, and two batteries of Horse Artillery, which formed part of the cavalry division. The Field batteries were A-1, D-1, I-2, N-2, C-3, J-3, and the 9-pounder battery from India; the Horse Artillery Batteries were the G-B and N-A; and the screw guns worked by the 7-1 Garrison Mountain Battery were on the field.

Besides this force there was the Indian Infantry Brigade, consisting of 1st Battalion Seaforth Highlanders, which are composed of the old 72d and 78th, and bear the distinctive badge of the Elephant, together with a list of 15 campaigns and battles. The Indian regiments were the 7th, 20th, and the 29th Bengal Native Infantry, but they were only represented in small numbers, having each left two companies behind to garrison Ismailia, and besides dropped half a company each at Nefiche and at Mahuta. The 1st Battalion of the Manchester

Regiment, which came from India, had the grievous disappointment of being left to garrison Ismailia. Of all the painful duties which can be assigned to a regiment, that of remaining behind when their comrades are advancing upon the enemy is the hardest; but it is a duty which must be done by some one, and as the Indian brigade was to be more or less broken up, the task of defending Ismailia against an attack which might still come had evidently to be committed to one of the regiments of that Brigade. The Manchester regiment has the less reason to complain as it already carries the honourable distinction of the Sphinx for old service in Egypt, and gained fresh honours lately during the last campaign in Afghanistan.

The Fleet, the co-operation of which has so added to the favourable chances of the campaign, was represented by 250 bluejackets with six Gatlings, and the 40-pounder railway gun, together with the Krupp taken from the enemy.

The whole force taken together comprised about 11,000 bayonets, 2,000 sabres, and 60 guns, in addition to the 40-pounder.

Sir Garnet Wolseley estimates the force of the enemy at 17,500 regular Infantry, 2,500 Cavalry, 70 guns, and 6,000 irregulars, Bedouin or otherwise.

The position of the enemy, though nominally at Tel-el-Kebir, that is, south of the Canal, actually extended, so far as is known, to El Karaim, and even pushed out a strong detachment to Salahieh. Thus, instead of concentrating his forces as much as possible, Arabi distributed them over too large a space. In the anxiety to guard everything, he failed to be strong at the decisive point.

Behind these works lay an Egyptian force the strength of which can only be estimated by the fact that 18,000 rations were issued the day before for the regular troops, and 7,000 for irregulars. But the strength of his enemy was only known va-

guely to Sir Garnet Wolseley. The practical facts before him were—the works, the knowledge that they were fully occupied, the knowledge also of a detachment at Salahieh, and the certainty that the enemy would be informed of all his movements by spies. The experience of an Egyptian sun on the desert sands had shown that though English troops could fight and conquer in the heat of the day, the hard task before them had better be performed in the cool hours of the morning. To save his troops, to deceive the prying eyes of the enemy, and to seize the best moment for an assault, Sir Garnet decided to move under cover of the night and commence his attack before daylight. Accordingly, at nightfall on the 12th, the camp was broken up, tents struck, packed, and placed in order, and, availing itself of the absence of moonlight, the force moved silently forward in the order chosen for attack. After proceeding a short distance, the men bivouacked, no light nor fire being allowed. At half-past one the men rose from their sandy couches and advanced with less difficulty than is to be expected in night marches. There was some wandering astray, but, on the whole, the movement was steady. The total strength present was 11,000 bayonets, 2,000 sabres, and 60 guns, about half that of the enemy, excluding the Salahieh detachment. On the right marched the bulk of the Cavalry Brigade, and two Horse Artillery batteries, with orders to sweep round to the rear of the enemy's line at daylight. Next to them on the left, and forming the right of the Infantry, was General Graham's Brigade, supported by the Duke of Connaught with the Guards. Nearer to the railway and canal moved 42 guns under Colonel Goodenough, supported by a fourth brigade made up the day before from the King's Royal Rifles and the Duke of Cornwall's, and with them apparently were the Marine Light Infantry. On the same side of the railway and the canal was the bulk of the Highland Brigade, under Sir Archibald Alison, and on the south of the canal such of the

Indian Contingent as were upon the ground, the 1st Manchester having been left at Ismailia and detachments of other regiments dropped on the line of communications. With them also must have been a portion of the Indian cavalry. The iron-clad train occupied the railway, supported and manned by the 250 blue-jackets who had been drawn from the ships and sent to the front to share in the last great duty and the final satisfaction.

The Highland Brigade on our left and Graham's Brigade on our right stole forward through the darkness to the assault of the enemy's position. Knowing the effect produced by the sudden apparition of a brave enemy determined to charge, Sir Garnet decided to have no preliminary fire, but to trust only to the shadows of the night to veil his advance. It is said that the men were ordered not even to load if it could possibly be avoided, and, in any case, to close with the foe and, breast to breast, decide the struggle with the bayonet. On both flanks the British attacking force came within short distance of the enemy before they were perceived. Dawn was faintly creeping up the eastern sky when the crest of a ridge some 500 yards in front of the Egyptian left became covered with moving objects telling black against the pale light. It was Graham's brigade advancing. Then a single shot from the Egyptian lines rang out in the stillness of the morning, and immediately the whole front of the position was broken by jets of red flame from rifle and cannon. It would seem that at this moment the rest of the troops down in the shadows of the plain had not been perceived, and that the fire was of that involuntary sort which tells of want of steady discipline. For a moment the Brigade on the hill gazed upon the enemy at its feet, upon the dark lines of their earthworks with their fringe of flame. Then, with a grand cheer, the tide of British lads was let loose, and the blood of the men bounded no less strongly in their veins because their service in the Army was to be six years instead

of twelve. But, as in this part of the field the English soldiers had been seen by the enemy, they were subjected to a hail of bullets. The Egyptian infantry clustered thickly on the parapets of the redoubts and poured down the slopes into the trenches. Hundreds of them, lying down, plied the head of the advancing brigade with fire. The young soldiers deployed with perfect steadiness and advanced by sections, alternately lying down to fire and making short rushes towards the enemy's position, always under full control of their officers. As they came near the trenches they gathered themselves together and, without an instant's hesitation, leaped into the midst of the enemy. Bayonet and butt were plied with deadly effect, and the second line, rushing down to join their comrades, found the trenches full of dead and wounded Arabs. The first line of the Egyptian defences was captured, with its redoubts. A stronger fort lay behind, still occupied heavily by the enemy and armed with 12 guns. Line after line of shelter trenches stood further on. To have stopped at this time would have been to re-enact the mistake of the Redan in the Crimea. The men cheered again, climbed the mount and the parapet of the fort, and bayoneted the gunners at their guns. A quarter of an hour or 20 minutes from the first great rush after the firing advance sufficed to place the intrenchments, with their supporting redoubts, in the hands of the English troops. Those of the enemy who were able fled, followed by the fire of the troops in the captured positions, and though other redoubts as yet unattacked fired for a while, the threat of the English cavalry coming behind caused them to be suddenly evacuated.

Towards the left of the British line the Highlanders advanced with a steadiness not to be surpassed. Not a shot was fired until they were within 300 yards of the enemy's position, and then came that burst of flame which had broken out at once along the whole Egyptian line. But at this point the enemy fired wildly. The Highlanders cheered and dashed for-

ward to the shrill music of their pipes. The first line of intrenchments was carried with a rush, and the men found themselves in presence of a second line, which had to be carried. Like their comrades on the right during the first advance, the Highlanders pushed on for a time slowly and firing steadily, then cheered again, and rushed into the inner redoubt. The resistance of the Egyptians failed from that moment, and the battle was virtually over—the battle, but not the pursuit. The Egyptian regiments, mingled together in one wild and disastrous retreat, had no rest given to them, no chance of rallying for a moment, for now it was the turn of the cavalry, which, sweeping round from the north, cut to pieces the tide of fugitives. The same gallant spirit and events of the same character were seen in other parts of the field. The 4th Brigade attacked boldly and suffered heavy losses, and the artillery did its part with its usual devotion. But the battle was won in an old-fashioned way, suitable to the requirements of the case. If new occasions demand new means, old occasions demand the old means of the bayonet and the sabre. In former actions the artillery and cavalry had been chiefly conspicuous. The battle of Tel-el-Kebir was won by the infantry.

Nor was any chance of rallying allowed to the beaten enemy. The guns in the redoubts were turned against their former masters, and with astonishing swiftness portions of the British Artillery bounded over intervening ditches and parapets into the heart of the position and crushed the terrified masses by shrapnel fire, causing the accumulations of men to burst asunder and fly in all directions.

Not a moment was lost. Straight over the battlefield the Indian contingent pressed the flying foe and moved swiftly upon Zagazig. It was joined by a battalion of Highlanders at or near Abou Essen, and together they occupied Zagazig that afternoon. The bulk of the Cavalry division and the Mounted

Infantry, having cut through the flying masses, moved southwest by the desert road upon Belbeis, which it occupied, after a slight skirmish, that evening, the guns however, and the heavy cavalry being somewhat delayed by obstacles on the route. This force occupied Cairo next evening, the 14th, after a splendid march of 89 miles under the blazing Egyptian sun, saving the town from destruction, which had been threatened, and capturing Arabi himself, who remained a prisoner in our hands. On the 14th, also, Sir Garnet Wolseley, the Head-quarters Staff and a company of Scots Guards, with the Duke of Connaught, moved on to Zagazig by train; thence next day, the 15th, to Benha and Cairo, entering the capital amid the acclamations of the people, accompanied by detachments of Guards, Highlanders, and Marines.

The English force, after toilsome exertions to secure a base at Ismailia and a proper line of communications—exertions which lasted three weeks—found itself almost half a day's march from the enemy, who had been repulsed again and again by the advanced guard, and had at last taken refuge within his fortifications.

The night advance had been successful in this, that the whole march was unopposed till the troops were in position. Before long their artillery opened fire, and though it is unlikely that the enemy suffered heavy loss so long as he remained undisturbed behind his intrenchments, sufficient was done to establish the superiority of our fire and prepare the Arabs for retreat. Yet as the dawn mounted in the sky, and objects became more distinct, the Egyptian fire improved, and our men began to fall more freely. They were, however, closer by that time, and never wavered in their advance as they pressed on firing steadily. This preparatory action seems to have lasted for some hours, probably about three, and the fire was general all along the line, the cavalry always creeping round insidiously to turn the flanks of the enemy, and change

retreat into rout. All such advances of infantry are made by degress, one portion lying down and firing to control the opposing fire and support the forward movement of the others, who, in their turn, take up the duty of firing from a resting position and help the rest to advance. We may therefore imagine the Egyptians watching a line of fire which seems to waver but never fails to approach, which disappears in parts only to appear again with renewed vigour. Meanwhile the terrible shrapnel fire covers the parapets with showers of balls, and causes a growing tendency to keep well down below the crest. But the soldiers so cowering cannot aim at the English, and the bullets generally fly too high.

At last the gradual process of advance in fighting formation was over. Steady Scotch and English, wild and laughing Irish arrived within 200 yards of the opposing works, and with mighty cheers the gallant lads leapt all intervening obstacles, and found themselves breast to breast with their adversaries. The army had to be dashed to pieces, not made to retreat, and as the remnants of the first line recoiled from the bayonet, leaving their guns a prey to the victors, they found themselves under the flashing sabres and iron hoofs of the cavalry. Discomfited, broken, put to flight by the infantry, they were annihilated as an army by the cavalry.

The victory of Tel-el-Kebir is an achievement as brilliant, complete, and cheaply purchased as any that has ever graced the English arms. A position which the General describes as « very extensive and very strongly fortified » has been attacked and carried with one rush, and with a loss which, though it includes many valuable lives, is yet far smaller than the most reasonable expectation could have foreseen. Sir Garnet Wolseley has known his business much better than his critics. Without hurry, but without any unnecessary delay, he has gone straight forward to his task; and his own skill, the ability of his officers, and the admirable fighting

qualities of his young soldiers have enabled him to win a great victory.

It is impossible to conceive an operation more successful and executed in a more masterly manner. The intrenchments in which Arabi put his trust, and which were in truth formidable enough to justify some confidence, were carried with brilliant courage by the British troops. The proudly laconic message of the Roman general may be used by Sir Garnet Wolseley with full and unquestionable right. From the time our soldiers left their bivouac until the Egyptians were in panic-stricken flight, there was not a moment's pause in the onward movement. In the end the battle was won in the good old-fashioned English style, at the point of the bayonet. Sir Garnet Wolseley adapted his tactics to the enemy he had to contend with. The Egyptians have no particular objection to rifle or even to artillery fire at long ranges. At fifteen hundred yards they show sufficient courage, and with a breast-work in front of them they are almost as good soldiers as one need wish. They have never been able to stand the onset of British troops, whether mounted or on foot. The whole problem, therefore, was to get our men to close quarters with the smallest possible loss, and the way to do this was to start before dawn. Our troops had to run the gauntlet of the enemy's fire for about a mile; though it appears to have done no mischief until the greater part of that distance was passed. By the time the foe had sufficiently recovered from their confusion and surprise to use their weapons with anything like precision our men were too close to be stopped by anything they could do. When they saw our soldiers on their parapets notwithstanding the hail of bullets they had been discharging, they gave up the struggle and defeat instantly became total rout.

The whole plan of the campaign, as hitherto carried out, was settled by Sir Garnet Wolseley with the concurrence of

his superiors and the hearty acquiescence of his chief advisers before he left England. There never was any question at all about the Canal being the basis of operations. Not only did he lay down the general plan of the campaign, but the time to be occupied in the different stages of the undertaking was calculated with a minute accuracy which events have fully verified. Before leaving this country he put his finger upon Tel-el-Kebir, saying that there Arabi would make his stand, and that we should attack him on the 15th of September. It looks a remarkably good guess, but it was really the result of accurate knowledge and careful calculation. We mention the circumstance to show that a great deal which to the outside observer seems chance is really foreseen, planned, and allowed for. Of course no man's calculations are of the slightest use unless he can rely upon his *data*. Sir Garnet Wolseley assumed a very high degree of efficiency in the marine transport both from this country and from India, and his confidence was fully justified. He assumed a certain high standard of endurance for the troops under his command, and again events have verified his calculations. Our immense naval and maritime resources have enabled us to carry out co-ordinated transport movements from the extremities of our vast empire with a regularity and precision to which no other nation could attain; and our young soldiers have proved themselves, as their commander expected, fully equal to the maintenance of the reputation achieved by their predecessors. Another point is worth mentioning, as it covers a great deal of hasty though superficially plausible criticism. On the day he left Alexandria for Aboukir Sir Garnet Wolseley wrote, I shall make for Kassassin Lock at once to get water. » In view of this preconceived design to push ahead, his statement that he outran his transport becomes the literal expression of fact instead of the euphemistic phrase some were inclined to think it. The thing had to be done rapidly, and he made up his mind to do it ra-

pidly, with full knowledge of what the determination involved. The Canal had to be seized at once; and the Canal once seized Kassassin had to be reached with all possible celerity in order to save the water supply. Critics sitting at ease in their arm chairs propounded the theoretically admirable principle that you should never begin a thing until you are in a position to carry it right through in a complete and orderly manner. Sir Garnet Wolseley more wisely decided that to carry the thing through is the great point; he saw that it had to be done rapidly or not at all; calculated that the stuff at his disposal was strong enough to stand the strain; and then quite deliberately went ahead of his transport. He has achieved a success which renders all apology for his methods superfluous and classes him as one of the greatest commanders. None would be more eager than himself to remind the country that whatever merit he may claim as head of the expedition, that success is largely due to the exceedingly able and zealous manner in which he has been assisted by his staff. To Sir John Adye, in particular, belongs a high meed of praise for the indefatigable energy he has displayed.

It is always expected that English troops should be ready to face in battle numbers exceeding theirs, and the long roll of victories, especially over Oriental troops, has always been marked by a disproportion in numbers. But it has not often been given to an English General to attack a force of double his own strength, armed with some of the best weapons of the day, and defending themselves behind works designed by competent engineers and built by men especially versed in that part, at least, of the soldier's craft. An English army in the field is now exactly what it ever has been. There is in the English army one tradition and one force of unsurpassable strength. It is the idea of duty and the feeling that every man is working, not for himself, but for the general cause of his country. The effect of this and of the natural instinct for figh-

ting which underlies the civilization of these islands has now been, that Sir Garnet Wolseley with his small but steadfast British army attacked and took in a marvellously short space of time the Egyptian Plevna, completely routed an army of double his own strength, captured many guns, several railway trains, immense quantities of supplies, stores, and prisoners.

The great victory of Wednesday was followed up with the same vigour and thoroughness that have marked the whole conduct of the campaign.

To know how to follow up a beaten foe is almost as necessary as to know how to beat him.

Immediately after the battle, the pursuit was commenced on two lines. The Indian contingent, pressed on at once by forced marches to Zagazig, followed in the evening by the Highland Brigade, which was pushed yet further to Benha, on the line of railway there to seize the passage of the Nile. The bulk of the cavalry soon covered that portion of the desert which intervenes between Tel-el-Kebir and Belbeis, which they occupied the same night.

The cavalry and the Guards pushed on towards Cairo, and the Duke of Connaught, who has done his work like a good soldier, lead the advanced guard of England into the capital of the Khedive.

Nothing could be more complete and signal than the success of Sir Garnet Wolseley's brief but brilliant campaign.

He has been ably seconded throughout by subordinates whose zeal and activity secured the prompt execution of all his designs, and his troops have approved themselves worthy to uphold the glorious traditions of the British army. They have borne with patience and goodwill such trials as befel them, and there probably never was an army which exhibited less of murmuring or malingering in the field. It is easy to think because the issue of the campaign has been so sudden and so decisive that its difficulties and risks were insignifi-

cant. They were not insignificant in themselves, but they were reduced to insignificance by skill, forethought, and organization on the part of the commanders, and by steadiness, bravery, and endurance on the part of the troops employed. The capture of Tel-el-Kebir itself was, by the common consent of public opinion throughout Europe, a brilliant feat of arms. But the way in which the victory was followed up by the prompt capture of Zagazig and Belbeis and by forced marches on Cairo was a no less conspicuous example of military enterprise and endurance. « Our cavalry, » says Sir Garnet Wolseley, « did extremely well in taking possession of Cairo by » a very long forced march yesterday afternoon; » and he adds, in generous and deserved recognition of the spirit displayed by his troops, « all ranks have worked hard and done » their duty well. » The praise is abundantly earned, and the country will freely indorse it. It is not the least satisfactory feature of the campaign that the Indian troops have stood shoulder to shoulder with their European comrades, and have zealously fulfilled the duties of honour and difficulty with which they were charged.

The details show that for a few minutes the fighting at Tel-el-Kebir was more serious than was inferred from the first accounts of the action, and that our loss is somewhat more severe than was at first reported. There was keen rivalry between the different regiments for the honours of the day, and all behaved with a gallantry beyond praise. Upon the Highlanders fell the brunt of the conflict, but if others suffered less it was certainly from no want of dash on their own part. It is pleasant to acknowledge the admirable behaviour of the Indian troops, who are stimulated by the desire to prove themselves fully worthy of the honour of being placed in line with British soldiers. Four years ago the excitement among them at the prospect of fighting the battles of England was intense, and their disappointment at being sent back without

firing a shot was correspondingly keen. It was well understood, however, that had there been any fighting, they would have borne their share, and the knowledge of that fact had a most salutary effect in India. Now they have actually fought side by side with our troops, and have displayed qualities which fit them to take an honoured place in any army that the Empire may turn out to defend its interests. It is impossible to exaggerate the good effect of this comradeship in danger. Our Indian soldiers are proud of the trust reposed in them, and eager to justify it while nothing can inspire Englishmen with more legitimate and honourable pride than the thought that they have so managed their great dependency as to command its hearty loyalty.

The English General had to spend longer in securing his base than would be the case if we were better organized for sudden wars, but nothing better could have happened in the present case. The delay enabled the enemy to concentrate at Tel-el-Kebir and place his eggs in one basket, which the brilliant little English army had no difficulty in upsetting. It is now seen and known that the plan was conceived before leaving England and carried out as intended from day to day, and is at last brought to a satisfactory conclusion. The General commanding has designed, his Staff have worked out the details, and his regimental officers and men have struck the needful blows. The whole campaign has been carried out in businesslike manner, with steadiness, quiet work, and confidence that when the time came for engagements, great or small, the men would carry it through with spirit and determination. So far as can be seen, not a hitch has occurred, though some difficulty and delay was caused by want of transport. The Government have been unsparing in sending all that was needful for the troops, and have supported the hands of the General. Taken all in all, the campaign has shown that the army is more professional, and therefore more useful,

than at any time during this generation; and the knowledge cannot but be satisfactory to the country.

It is said, and we believe with truth, that Sir Garnet Wolseley, before the attack of Tel-el-Kebir, directed his men to reserve their fire until the last moment and to trust to the bayonet. There will probably be some criticisms on this order and inquiries whether it was in consonance with modern systems of tactics. We may say at once that it was entirely consistent with the modern idea. For the modern idea consists in this, that while a certain model of attack may be laid down for drill purposes, which supposes nearly level ground and everything in an average condition, any commander worthy of the name will adapt his means and his practice to the end required. Under ordinary conditions and supposing the enemy to have equally good troops with one's own, an attack conducted like the one at Tel-el-Kebir would surely fail. But, as it happened, the troops were not equal, and the attack was at least commenced before daylight. The Egyptians had evidently no regular system of outposts, or we must have heard of sharp struggles before the English force arrived within range of the works. Again, it was possible to count upon a very ill aimed musketry fire on the part of the enemy, so that it was not necessary to spend a long time in subduing that fire before the troops charged. To have hung about the outskirts of the trenches for a long time would have given the Egyptian troops time to recover from their surprise and to gain confidence. Moreover, it was well understood that there was no question of the success of our men at close quarters. Thus a number of considerations all pointed in the same direction, and the means were so contrived as to attain the end. It is this, and not any particular system of formation for attack which may be called the modern tactical idea. It means, in short, that soldiers should be masters of their profession and able to devise at any moment a system of attack best suited to the necessity

of the case. For instance, while it would now be madness to meet a portion of the German army in any stiff formation whatever, solidity and stiffness are just the qualities required to meet the attack of such enemies as the Zulus. What is right in one case is wrong in another, and the test of a good commander, whether general, colonel, captain, or lieutenant, is, that he is able to devise at a given moment exactly the right combination to suit his purpose. That which was suitable for darkness and an inferior enemy would not be so in other instances, and it is to be hoped that critics will remember this before declaring Sir Garnet Wolseley heterodox, and teachers of tactics will not use the present instance as a model for imitation under different circumstances.

Indifferent troops, men whose hearts are already in their homes, and who are in spirit looking over their shoulders, are always timid in the dark. Even good troops are so when they have to withstand, not to make, an attack. The darkness is all to the disadvantage of defenders in the moral impression which it creates. Again, the shadows of night conceal the attacking force and render the enemy ignorant of the position and strength of the columns. Weak feints can be made which would be quickly understood by day, but are as terrible as the main attack by night. And, above all, the night neutralizes the advantages possessed by the defenders, firing as they are from behind shelter and with rests for their rifles. The advantage disappears when they know not where to fire or on what point the attackers are advancing. A still stronger reason for a night attack is the coolness of the air, which would double the vigour of the English soldiers. To the Egyptians, accustomed to their own climate, and to work under a blazing sun, the noontide rays may matter little. To our troops they mean a list of killed and wounded which may vie with that produced by the fire of the enemy. There is a growing impression among soldiers of mark that in the future night at-

tacks will be common, and will furnish the best answer to the fire of modern breechloaders.

Against it there are the arguments that it is difficult to keep a force in hand at night, and especially difficult to gather it together for pursuit. The point of attack cannot be so well prepared by a previous artillery fire to demoralize the defenders, though this is the less necessary, as they would not know the direction in which the main attack was to be delivered.

The difference between day and night attacks was shown in the last war by the contrast between the assaults on Plevna and on Kars; the one a gigantic and repeated failure, the other a great success. But when all the arguments which we can marshal at home are exhausted, there remain many details, the value of which can only be estimated on the spot.

It is interesting to note the great part played in our modern political life by the discoveries of science and the achievements of our practical genius for machinery. Fifty years ago such an operation as we have just carried out in Egypt would have been absolutely impossible, and even twenty-five years ago it would have been justly reckoned marvellous had it distinctly approached the perfection attained to-day. Only the recent developments of electrical and engineering science have rendered possible that extreme nicety of calculation to which the striking effect of Lord Wolseley's combinations is due. The telegraph has annihilated time throughout our vast empire. Space remains to tyrannize over us, but even its ancient power is curtailed. We can bridge it with hitherto unknown celerity, and, what is even more important, with nearly absolute certainty. In the old days an admiral went forth to seek his enemy, but when, where, and how he might find him were matters within the domain of accident. Contrary winds might detain him for weeks in port, or might detain his adversary, or might in a score of ways disappoint the most sim-

ple calculation. To have started either from London or Bombay with the fixed persuasion that a given point in Egypt would be reached on a given day would have indicated extraordinary inexperience; while to have depended on the double event and calculated upon the exact coincidence of the arrivals from these distant ports would have argued lunacy. There is something exhilarating in the mere contemplation of the marshalled forces that now obey our will. Custom dulls our perception of the daily miracles wrought on our behalf, just as it does our apprehension of the yet older and more marvellous wonders of nature. Yet, as the sight of the sea in its strength or of the mountains in their calm may sometimes roll back the veil and restore the freshness of our perception, so is there in some of the manifestations of human control over nature a perennial, though sometimes suspended, power to impress the imagination. To many of us an express train shooting across the quiet fields or plunging into the yawning tunnel is a phenomenon that never loses its interest. If we think for a moment of the great ships pressing on through daylight and dark, through tempest and calm, to perform with ordered and foreseen punctuality an errand dictated many thousand miles away, we get something of the feeling with which our children watch a locomotive.

Lord Wolseley said in the recent campaign English soldiers, for the first time since the Crimean War, had encountered a regular army. They had since the war with Russia encountered Zulus, Ashantees, Maoris, men who brought against them bows and arrows, assegais, and shields, who in many cases had no artillery at all, and when they had field guns did not know how to use them. But in the late war they met with a regular army.

The victory was a victory of surprise; one of those bold strokes in which consummate audacity is the highest caution. There is something that must captivate the most torpid ima-

gination in the spectacle of the ease and rapidity with which an Army has been conveyed from these shores to Egypt, has fought a brilliant and successful campaign, and is being brought back to England. We should search in vain for a precedent to so rapidly-despatched a piece of business; and it is impossible for any English man not to experience a momentary feeling of exultation over the sight of such marvellous celerity, accompanied by such excellent results. It is thought a great feat for the peaceful tourist, unencumbered with baggage, and assisted on his road by an organisation for speeding the coming guest, if he makes the circuit of the world in three months. Yet in little more than that time an Army, with all its endless appurtenances and impedimenta, has gone from the North of Europe to the East of Africa, has carried its victorious flag through a trackless and difficult country, and has set its face homewards, that it may receive the reward of skill, patience, and valour. It is no ungrudging welcome the English people accord to the gallant soldiers that return from the dust and sand and sweltering heat—the thirst, hunger, and privations of the Egyptian Campaign.

LORD WOLSELEY'S DESPATCH

Cairo, Sept. 16.

Sir, — I have already had the honour of reporting by telegraph to you that I attacked the entrenched position of Tel-el-Kebir a little before sunrise on the morning of the 13th instant, completely defeating the enemy with very great loss, and capturing 59 field guns, vast quantities of ammunition, military stores, and supplies of all sorts.

The enemy were pursued to Zagazig, 25 miles from our

camp at Kassassin, by the Indian Contingent, the leading detachment of which reached that place under Major General Sir H. Macpherson, V.C., a little after four p.m., and by the Cavalry Division, under General Lowe, to Belbeis, which was occupied in the evening. Major General Lowe was ordered to push on with all possible speed to Cairo, as I was most anxious to save that city from the fate which befel Alexandria in July last.

These orders were ably carried out. General Lowe reaching the great barracks of Abassieh, just outside of Cairo, at 4.45 p.m. on the 14th instant. The cavalry marched 65 miles in these two days. The garrison of about 10,000 men, summoned by Lieut. Colonel H. Stewart, A.A.G. to the Cavalry Division, to surrender, laid down their arms, and our troops took possession of the citadel. A message was sent to Arabi Pasha through the Prefect of the city, calling upon him to surrender forthwith, which he did unconditionally; he was accompanied by Toulba Pacha, who was also one of the leading rebels in arms against the Khedive.

The Guards, under his Royal Highness the Duke of Connaught, reached Cairo early on the 15th inst.

The result of the battle of Tel-el-Kebir has been the entire collapse of the rebellion. The only place that has not as yet surrendered is Damietta, and its capture or surrender can be easily effected at our leisure.

The men of the rebel army having laid down or thrown away their arms in their flight, have now dispersed to their homes, and the country is so rapidly returning to its ordinary condition of peace that I am able to report the war to be at an end, and that the object for which this portion of her Majesty's army was sent to Egypt has been fully accomplished.

Such is a brief summary of the events of the last three days. I shall now endeavour to describe them somewhat in detail.

From the daily reconnoissance of the position at Tel-el-

Kebir, made from our camp at Kassassin, especially from the good view I obtained of the enemy's works on the 9th instant, when our troops drove back within their entrenchments the force of 13 battalions, 5 squadrons, and 18 guns, that had attacked our camp in the morning, it was evident their works were of great extent, and of a formidable character. All the information obtained from spies and prisoners led me to believe that the enemy's force at Tel-el-Kebir consisted of from 60 to 70 horsed guns, which were mostly distributed along their line of works, of two Infantry divisions (24 battalions) of about 20,000 men, and three regiments of cavalry, together with about 6,000 Bedouins and Irregulars, besides a force of about 5,000 men, with 24 guns, at Salhalieh, all under the immediate command of Arabi Pacha. I have since been able to verify these numbers, which are certainly not overstated, except as regards the number of guns at Tel-el-Kebir, which I believe to have been 59, the number we took in the works and during the pursuit.

Owing to the numerous detachments I was obliged to make for the defence of my long line of communications from Suez to Ismailia, and thence on to Kassassin, and owing to the losses incurred in previous actions, I could only place in line about 11,000 bayonets, 2,000 sabres, and 60 field guns.

The enemy's position was a strong one; there was no cover of any kind in the desert lying between my camp at Kassassin and the enemy's works north of the Canal. These works extended from a point on the Canal $1\frac{1}{2}$ miles east of the railway station of Tel-el-Kebir for a distance, almost due north, of about $3\frac{1}{2}$ miles.

The general character of the ground which forms the northern boundary of the valley through which the Ismailia Canal and railway run is that of gently undulating and rounded slopes, which rise gradually to a fine open plateau from 90 to 100 feet above the valley.

The southern extremity of this plateau is about a mile from the railway, and is nearly parallel to it. To have marched over this plateau upon the enemy's position by daylight, our troops would have had to advance over a glacis-like slope in full view of the enemy, and under the fire of his well-served artillery for about five miles. Such an operation would have entailed enormous losses from an enemy with men and guns well protected by entrenchments from any artillery fire we could have brought to bear upon them. To have turned the enemy's position either by the right or left was an operation that would have entailed a very wide turning movement, and therefore a long, difficult, and fatiguing march, and what is of more importance, it would not have accomplished the object I had in view, namely, to grapple with the enemy at such close quarters that he should not be able to shake himself free from our clutches except by a general flight of all his army.

I wished to make the battle a final one; whereas a wide turning movement would probably have only forced him to retreat, and would have left him free to have moved his troops in good order to some other position further back. My desire was to fight him decisively where he was, in the open desert, before he could retire to take up fresh positions more difficult of access in the cultivated country in his rear. That cultivated country is practically impassable to a regular army, being irrigated and cut up in every direction by deep canals.

I had ascertained, by frequent reconnaissances, that the enemy did not push his outposts far beyond his works at night, and I had good reason for believing that he then kept a very bad look out. These circumstances, and the very great reliance I had in the steadiness of our splendid infantry, determined me to resort to the extremely difficult operation of a night march, to be followed by an attack, before daylight, on the enemy's position; the result was all I could have wished for.

At dawn on the morning of the 12th instant, accompanied by all the Generals and Brigadiers, I inspected the enemy's works, and explained to them my intended plan of attack, and gave to each a sketch, showing the formation in which it was to be effected. (Copy enclosed, marked B.)

As soon as it was dark on the evening of the 12th instant, I struck my camp at Kassassin, and the troops moved into position, the left near the point marked « Ninth Hill » on sketch A, where they bivouacked.

No fires were allowed, and even smoking was prohibited, and all were ordered to maintain the utmost silence throughout the night's operation. At 1.30 a.m., on the morning of the 13th instant, I gave the order for the advance of the 1st and 2d Divisions simultaneously. The night was very dark, and it was difficult to maintain the desired formation, but, by means of connecting files between the battalions and brigades, and between the first and second lines, and through the untiring exertions of the Generals and the Officers of the Staff generally, this difficulty was effectually overcome.

The Indian Contingent* under Major General Sir H. Macpherson, and the Naval Brigade under Captain Fitzroy, R.N., did not move until 2.30 a.m. To have moved them earlier would have given the alarm to the enemy, owing to the number of villages in the cultivated land south of the Canal.

Telegraphic communications by means of an insulated cable was kept up through Kassassin all through the night between the Indian Contingent on the south of the Canal, and the Royal Marine Artillery, with which I moved in rear of the 2d Division.

In moving over the desert at night, there are no land marks

* 7 | 1 Royal Artillery (Mountain Battery), 1st Battalion Seaforth Highlanders, 2d Battalion Native Infantry, made up of detachments of 7th Bengal Native Infantry, 20th Panjaub Infantry, and 29th Beloochees.

to guide one's movements; we had, consequently, to direct our course by the stars. This was well and correctly effected, and the leading Brigades of each Division both reached the enemy's works within a couple of minutes of one another.

The enemy were completely surprised, and it was not until one or two of their advanced sentries fired their rifles, that they realised our close proximity to their works.

These were, however, very quickly lined with their infantry, who opened a deafening musketry fire, and their guns came into action immediately. Our troops advanced steadily without firing a shot, in obedience to the orders they had received, and when close to the works went straight for them, charging with a ringing cheer.

Major General Graham reports « The steadiness of the advance of the 2d Brigade under what appeared to be an utterly overwhelming fire of musketry and artillery will remain a proud remembrance. »

The 2d Brigade was well supported by the Brigade of Guards, under H.R.H. the Duke of Connaught.

On the left the Highland Brigade*, under Major General Sir A. Alison, had reached the works a few minutes before the 2d Brigade had done so, and in a dashing manner stormed them at the point of the bayonet, without firing a shot until within the enemy's lines. They were well supported by the Duke of Cornwall's Light Infantry and the 3d Royal Rifles, both under the command of Colonel Ashburnham of the last-named corps.

In the centre, between these two attacks, marched seven

* 2d Battalion Royal Irish Regiment, Royal Marine Light Infantry, 2d Battalion York and Lancaster Regiment, 1st Battalion Royal Irish Fusiliers.

** 1st Battalion Royal Highlanders, 1st Battalion Gordon Highlanders, 1st Battalion Cameron Highlanders, 2d Battalion Highland Light Infantry.

batteries of Artillery, deployed into one line, under the command of Brigadier General Goodenough, and, after the capture of the enemy's works, several of these batteries did good service, and inflicted considerable loss upon the enemy, in some instances firing canister at short ranges.

On the extreme left the Indian Contingent and the Naval Brigade, under the command of Major General Sir H. Macpherson, V.C., advanced steadily and in silence, the Seaforth Highlanders leading, until an advanced battery of the enemy was reached (it is not shown in sketch A), when it was most gallantly stormed by the Highlanders, supported by the Native Infantry Battalions.

The squadron of the 6th Bengal Cavalry, attached temporarily to General Macpherson, did good service in pursuing the enemy through the village of Tel-el-Kebir.

The Indian Contingent scarcely lost a man, a happy circumstance, which I attribute to the excellent arrangements made by Major General Macpherson, and to the fact that, starting one hour later than the 1st and 2d Divisions, the resistance of the enemy was so shaken by the earlier attacks north of the Canal, that he soon gave way before the impetuous onslaught of the Seaforth Highlanders.

The Cavalry Division, on the extreme right of the line, swept round the northern extremity of the enemy's works, charging the enemy's troops as they endeavoured to escape; most of the enemy, however, threw away their arms, and, begging for mercy, were unmolested by our men. To have made them prisoners would have taken up too much time, the Cavalry being required for the more important work of pushing on to Cairo.

Such is the general outline of the battle of Tel-el-Kebir. All the previous actions of this short campaign were chiefly Cavalry and Artillery affairs, but that of the 13th instant was essentially an Infantry battle, and was one that, from the

time we started at 1.30 a.m. until nearly 6 a.m., when it was practically over, was peculiarly calculated to test, in the most crucial manner, the quality and the fighting discipline of our Infantry.

I do not believe that at any previous period of our military history has the British Infantry distinguished itself more than upon this occasion.

I have heard it said of our present Infantry Regiments that the men are too young, and their training for manœuvring and for fighting, and their powers of endurance, are not sufficient for the requirements of modern war. After a trial of an exceptionally severe kind, both in movement and in attack, I can say emphatically, that I never wish to have under my orders better Infantry Battalions than those whom I am proud to have commanded at Tel-el-Kebir.

Our casualties have been numerous, but not so many as I had anticipated. Her Majesty has to deplore the loss of many gallant men, who died as became the soldiers of an army that is proud of the glorious traditions it has inherited.

It would be impossible in this despatch to bring to your notice the services of those officers whom I consider especially worthy of mention. I shall do so in a subsequent despatch; but I cannot close this without placing on record how much I am indebted to the following officers who took part in the battle of Tel-el-Kebir, and who, by their zeal and ability, contributed so largely to its success :—General Sir John Adye, K.C.B., Chief of the Staff; Lieut. Generals Willis and Sir E. Hamley; Major-Generals Sir A. Alison, H.R.H. the Duke of Connaught, Drury-Lowe, Sir H. Macpherson, and Graham; Brigadier Generals Goodenough, R.A. Sir Baker Russell, the Honourable J. Dormer; Deputy Adjutant General Tanner and Colonel Ashburnham, who temporarily commanded a brigade during the action; and to Captain Fitzroy, who commanded the Naval Brigade.

Brigadier General Nugent, R.E., remained during the action in command of the left at Kassassin, to cover the rear of the army operating in his immediate front, and to protect that position, with all its stores and depots, from any possible attack from the enemy's force at Salhalieh. He rejoined me in the evening at Tel-el-Kebir, having carried out the orders he had received.

The medical arrangements were all they should have been, and reflect the highest credit upon Surgeon General Hanbury.

In the removal of the wounded on the 13th and 14th instant to Ismailia the Canal boat service, worked by the Royal Navy, under Commander Moore, R.N., did most excellent work, and the army is deeply indebted to that officer and to those under his command for the aid he afforded the wounded, and for the satisfactory manner in which he moved a large number of them by water to Ismailia.

No exertion has been spared on the part of Major General Earl, commanding the line of communications, and of Commissary General Morris, to supply all the wants of this army during its advance from Ismailia.

To the Head Quarter Staff, and to officers composing the Staff of each Division, my best thanks are due for the able manner in which they performed their duty.

In conclusion, I wish to express my deep sense of the high military spirit displayed throughout the battle of Tel-el-Kebir, and during all our previous engagements, by commanding officers, by all regimental officers, and by every non-commissioned officer and private now serving in Egypt.

I have also the honour to enclose a roll of the casualties which occurred at the battle of Tel-el-Kebir.

Major George FitzGeorge, 20th Hussars, the senior member of my personal Staff, is the bearer of this despatch, and

I have the honour to recommend him to your favourable consideration.—I have, &c.

G. J. WOLSELEY, General,
Commander-in-Chief H.M. Forces in Egypt.

DESPATCH FROM LORD WOLSELEY

Cairo, September 24th, 1882.

Sir,—In my despatch of the 16th instant, I promised to forward for your information at a future date the names of those who, in my opinion, should be specially brought to your favourable notice for the good work they have done during the campaign.

It is usual to make a report of this nature at the termination of a war, and to do this justly and fairly is one of the most difficult tasks that devolves upon a General commanding in the field, especially when, as in the present instance, almost all those employed in any other than regimental positions have been carefully selected, either on account of the ability they have displayed in former wars, or because they have passed the prescribed course of study at the Staff College.

In my previous Despatch I referred to the good services performed by the General Officers Commanding Divisions and brigades, or holding superior positions on the Staff of the army. It is therefore unnecessary for me to repeat their names, but before passing on to those who have rendered good service in less prominent positions, I would wish to avail myself of this opportunity of expressing how deeply I have been indebted, from the beginning until the termination of this war, to General Sir John Adye, my Chief of the Staff, for the cordial, loyal, and efficient assistance I have at all times

received from him. His ability as an administrator is well known to you, and the highest praise I can give him is to say that his soldierlike qualities are fully on a par with his administrative capacity.

Sir John Adye brings to my notice the able manner in which Major the Honourable N. G. Lyttelton, Rifle Brigade, who acted as his secretary, has done his work, a fact to which I have great pleasure in bearing testimony.

His Aide-de-Camp was Lieutenant the Honourable F. W. Stopford, Grenadier Guards.

Lieutenant Generals G. H. S. Willis, C.B., and Sir E. B. Hamley, K.C.M.G., C.B., led their divisions in a very gallant manner at the battle of Tel-el-Kebir. General Willis commanded at Kassassin, when it was attacked by the enemy on the 9th instant, and with a very small loss drove him back within his entrenchments.

The services rendered at Alexandria by Major General Sir A. Alison, Bart., K.C.B., previous to my arrival, are already well known to you. No one could have led his brigade more gallantly, or with greater skill, than he did on the 13th instant, when he showed it the way into the enemy's entrenchments. He is both zealous and capable.

Major General his Royal Highness the Duke of Connaught, K.G., Commanding 1st Brigade, has evinced upon all occasions throughout this war the utmost zeal for his profession. No one could have taken greater care of his men than he has done, providing for their wants and comfort, and setting them an example of cool courage under the very heavy musketry fire by which they were assailed on the 13th instant. He brings to my notice the valuable assistance he invariably received from Colonel Sir John M'Neill, V.C., K.C.M.G., and Major Lane, Rifle Brigade, the former, in my opinion, one of the best officers in the army.

I regret very much to say that the necessity of keeping a

large garrison at Alexandria deprived me of the active services in the field of Major General Sir E. Wood, G.C.M.G., Commanding the 4th Brigade. He had, however, responsible duties to perform at that station, especially when, on the capture of Cairo, the enemy laid down their arms at Kafr Dowar. He was also employed in obtaining the surrender at Damietta, all of which duties he performed to my entire satisfaction.

The brunt of the fighting throughout the campaign fell to the lot of major General G. Graham, V.C., C.B., Commanding 2d Brigade, and it could not have been in better hands. To that coolness and gallantry in action for which he has always been well known he adds the power of leading and commanding others.

Major General Sir H. T. Macpherson, V.C., K.C.B., Commanding the Indian Contingent, is a pillar of strength in any army with which he serves. His varied experience of war, and the confidence he inspires in all under his command, mark him out as a divisional leader to whom the honour of our arms and the lives of her Majesty's soldiers can at all times be safely entrusted.

He speaks in high terms of his Staff whose names are given below :—

Lieutenant F. C. E. Childers, Royal Artillery, Aide-de-Camp.

Major A. B. Morgan, Norfolk Regiment, Assistant Adjutant General.

Captain H. Melliss, Bombay Staff Corps, Assistant Quartermaster General.

Major A. C. Toker, Bengal Staff Corps, Deputy Assistant Adjutant General.

Captain E. R. Elles, Royal Artillery, Deputy Assistant Quartermaster General.

Lieutenant J. M. Grierson, Royal Artillery, Deputy Assistant Quartermaster General.

Colonel C. Ashburnham, C.B., King's Royal Rifles, Aide-de-Camp, who acted as a Brigadier at Tel-el-Kebir, led his Brigade upon that occasion to my entire satisfaction.

Colonel H. S. Jones, as Colonel on the Staff, commanded the Battalion of Royal Marine Light Infantry, and also the Battalion of Royal Marine Artillery. He did his duty at all times with zeal and ability; the executive command of the Battalion of Royal Marine Light Infantry devolving upon Lieut. Colonel S. J. Graham.

Lieut. Colonel H. B. Tuson, of the Royal Marine Artillery, is a very good officer. Both these battalions have done excellent service; their discipline in camp and steadiness in action leave nothing to be desired.

Brigadier General O. V. Tanner, C.B., Commanding Infantry Brigade of the Indian Contingent, has been specially brought to my notice by Major General Sir H. Macpherson for the able manner in which he led his brigade.

Major General D. C. Drury-Lowe, C.B., has commanded the Cavalry Division with great skill and success throughout the campaign, and I have great pleasure in strongly recommending him to your most favourable consideration. His pursuit of the enemy and occupation of Cairo the day after the battle of Tel-el-Kebir is worthy of every praise. I believe the preservation of the city is owing to the splendid forced march made by the cavalry on that occasion. The Staff of the Cavalry Division was as follows :—

Captain C. E. Swaine, 11th Hussars, Aide-de-Camp.

Captain Viscount St. Vincent, 16th. Lancers, Aide-de-Camp.

Lieut. Colonel H. Stewart, 3d Dragoon Guards, Assistant Adjutant and Quartermaster General.

Lieut. Colonel M. G. Gerard, Bengal Staff Corps, Deputy Assistant Adjutant and Quartermaster General.

Lieut. Colonel H. McCalmont, 7th Hussars, Brigade Major, 1st Cavalry Brigade.

Major S. D. Barrow, Bengal Staff Corps, Brigade Major, 2d Cavalry Brigade.

The soldier-like qualities of Brigadier General Sir Baker Russell, K.C.M.G., C.B., are so well known that it is unnecessary for me to enlarge upon them. He is a born cavalry leader.

Brigadier General Wilkinson, who commanded the 2d Brigade of Cavalry (Native Cavalry), is a very zealous officer, and his frequent reconnaissances of the enemy's position at Tel-el-Kebir were very well carried out.

Before passing from the Cavalry Division I must bring prominently to your notice the name of Lieut. Colonel H. Stewart, 3d Dragoon Guards, Assistant Adjutant General to the Cavalry Division, one of the best Staff Officers I have ever known, and one whom I feel it will be in the interest of the Army to promote. General Drury-Lowe has written to me about him in the highest terms, especially remarking upon the tact with which he conducted the surrender of Cairo, and of the garrison of that city.

I would also venture to mention the names of Lieut. Colonel M. G. Gerard, of the Bengal Staff Corps, who was Deputy Assistant Adjutant General to the Cavalry Division, and of Lieut. Colonel H. McCalmont, 7th Hussars, and of Major S. D. Barrow, Bengal Staff Corps, the Brigade Majors of the two Cavalry Brigades, all of whom are good soldiers.

General Drury-Lowe also speaks in the highest praise of Lieut. Colonel G. B. Borradaile, Royal Horse Artillery, who ably commanded the battery permanently attached to his division.

The Royal Artillery and Royal Engineer Staff, composed as follows, have done their work to my satisfaction :—

ROYAL ARTILLERY.

Brigadier General W. H. Goodenough.

Captain G. B. N. Martin, Aide-de-Camp.

Major A. G. Yeatman-Biggs, Brigade Major.

Captain H. S. Dalbiac, Acting Aide-de-Camp during absence of Major Yeatman-Biggs.

At the battle of Tel-el-Kebir Brigadier General Goodenough commanded and directed with much skill the movements of 42 guns, which formed the centre of our second line. He is an excellent officer. He speaks in very high terms of the valuable services rendered to him by his Brigade Major, Major Yeatman-Biggs, and by his Aide-de-Camp, Captain G. B. Martin, who acted as Brigade Major to the Artillery when Major Yeatman-Biggs was incapacitated by illness.

ROYAL ENGINEERS.

Brigadier General G. B. P. N. H. Nugent, C.B.

Captain S. Waller, Aide-de-Camp.

Major T. Fraser, C.M.G., Brigade Major.

The Staff of the two Infantry Divisions, including the Brigade Majors and Aides-de-Camp to the Brigadiers, consisted of:—

1st Division.

Lieut. General G. H. S. Willis, C. B.

Captain W. C. James, 2d Dragoons, Aide-de-Camp.

Lieutenant A. E. Codrington, Coldstream Guards, Aide-de-Camp.

Colonel R. R. Gillespie, Assistant Adjutant and Quartermaster General.

Major H. J. T. Hildyard, Highland Light Infantry, Deputy Assistant Adjutant and Quartermaster General.

Mayor W. C. F. Molyneux, Cheshire Regiment, Deputy Assistant Adjutant and Quartermaster General.

Captain J. J. C. Herbert, Grenadier Guards, Brigade Major, 1st Brigade.

Captain H. C. Hare, Cheshire Regiment, Brigade Major, 2d Brigade.

Captain W. H. Holbech, King's Royal Rifles, Brigade Major, 2d Brigade.

Major R. B. Lane, Rifle Brigade, Aide-de-Camp to Brigadier General, 1st Brigade.

Major R. C. Hart, V.C., R.E., Aide-de-Camp to Brigadier General, 2d Brigade.

Of the above excellent officers I would especially bring to your notice the name of Colonel R. R. Gillespie, who is a first-rate Staff officer, and well deserving of your favourable consideration.

2d Division.

Lieut. General Sir E. B. Hamley, K.C.M.G., C.B.

Captain Honourable H. G. Gough, 14th Hussars, Aide-de-Camp.

Lieutenant J. Hanbury Williams, Oxfordshire Light Infantry, Aide-de-Camp.

Colonel P. A. A. Twynam, Assistant Adjutant and Quartermaster General.

Major K. D. Murray, Royal Irish Fusiliers, Deputy Assistant Adjutant and Quartermaster General.

Major E. J. Lugard, Royal Lancashire Regiment, Deputy Assistant Adjutant and Quartermaster General.

Major R. W. T. Gordon, Argyle and Sutherland Highlanders, Brigade Major, 3d Brigade.

Captain E. T. H. Hutton, King's Royal Rifles, Aide-de-Camp to Brigadier General of 3d Brigade.

Colonel P. A. A. Twynam is an excellent officer, thoroughly acquainted with the working of all the Military Departments; I beg to recommend him to your special notice.

The following are the names of the Officers who commanded Regiments, Battalions, Batteries, and Companies of Royal Engineers in the field throughout this war, to whom, and to the officers under their command, the country owes much.

CAVALRY.

Colonel H. P. Ewart, 2d Life Guards.

Major G. R. A. Denne, 4th Dragoon Guards.

Lieut. Colonel C. Campbell, 7th Dragoon Guards.

Lieut. Colonel K. J. W. Coghill, 19th Hussars.

Major F. Knowles, 2d Bengal Cavalry.

Lieut. Colonel J. Upperton, 6th Bengal Cavalry,

Lieut. Colonel W. H. Macnaghten, 13th Bengal Lancers.

ARTILLERY.

Lieut. Colonel B. F. Schreiber, Commanding Royal Artillery, 1st Division.

Lieut. Colonel F. C. Elton, Commanding Royal Artillery, 2d Division.

Lieut. Colonel C. E. Nairne, Commanding Corps Artillery.

Lieut. Colonel Minto Elliot, Commanding Siege Train.

Commanders of Batteries.

Lieut. Colonel G. W. Borradaile, N Battery, A Brigade.

Lieut. Colonel W. Brancker, N Battery, 2d Brigade.

Major P. T. H. Taylor, A Battery, 1st Brigade.

Major W. Ward, I Battery, 2d Brigade.

Major E. J. Jones, D Battery, 1st Brigade.

Major E. R. Cottingham, C. Battery, 3d Brigade.

Major L. F. Perry, J. Battery, 3d Brigade.

Major C. Crossthwaite, H Battery, 1st Brigade.

Major W. S. Hebbert, F Battery, 1st Brigade.

Lieut. Colonel W. M. B. Walton, G. Battery, B. Brigade.

Major J. F. Free, 7 Battery, 1st Brigade.

Major G. B. Macdonnell, 5 Battery, Scottish Division.

ROYAL ENGINEERS.

Commanders of Troops and Companies.

Major R. J. Bond, A Troop.

Major Sir A. Mackworth, Bart., C Troop.

Captain C. A. Rochfort-Boyd, Field Park.

Captain S. Smith, 8th Company.

Captain E. Wood, 17th Company.

Major W. Salmond, 18th Company.

Captain A. R. Puzey, 21st Company.

Captain C. de B. Carey, 24th Company.

Major B. Blood, 26th Company.

INFANTRY.

Colonel P. Smith, Grenadier Guards.

Colonel G. Wigram, Coldstream Guards.

Colonel G. Knox, Scots Guards.

Colonel C. F. Gregorie, Royal Irish Regiment.

Lieut. Colonel A. Fyler, Royal West Kent.

Colonel H. S. Jones, Royal Marine Light Infantry.

Lieut. Colonel H. B. Tuson, Royal Marine Artillery.

Lieut. Colonel F. E. E. Wilson, York and Lancaster.

Colonel J. N. Beasley, Royal Irish Fusiliers (since dead).

Colonel D. Macpherson, C.B. Royal Highlanders.

Lieut. Colonel D. Hammill, Gordon Highlanders.

Lieut. Colonel J. M. Leith, Cameron Highlanders.

Lieut. Colonel A. Straghan, Highland Light Infantry.

Lieut. Colonel W. S. Richardson, Duke of Cornwall's Light Infantry.

Colonel C. Ashburnham, C.B., Royal Rifles.

INDIAN CONTINGENT.

Lieut. Colonel C. M. Stockwell, C.B., Seaforth Highlanders.

Colonel H. R. B. Worsley, 7th Native Infantry.

Colonel R. G. Rogers, C.B., 20th Punjaub Infantry.

Lieut. Colonel J. Galloway, 29th Beloochees.

The following Regimental Officers have been recommended to me by the Officers Commanding Corps as specially deserving. They have not been selected because they were the se-

niors of their rank, but because they have been deemed by their commanding officers to be most worthy of consideration, and where all did well to have distinguished themselves most :—

Grenadier Guards.—Lieut. Colonel E. S. Bridges.

Royal Irish.—Major G. W. N. Rogers.

Royal Irish.—Captain H. J. Daubeney.

Duke of Cornwall's Light Infantry.—Lieutenant J. A. W. Falls.

Duke of Cornwall's Light Infantry.—Lieutenant G. G. Cunningham.

Royal Highlanders.—Lieut. Colonel W. Green.

Royal Highlanders.—Captain R. C. Coveny.

Gordon Highlanders.—Major J. Boyes.

Gordon Highlanders.—Captain A. E. A. Cross.

Cameron Highlanders.—Major W. H. M'Causland.

Cameron Highlanders.—Captain J. M. Hunt.

Highland Light Infantry.—Major R. Leigh.

Highland Light Infantry.—Captain C. M. M'Donald.

King's Royal Rifles.—Major C. P. Cramer.

King's Royal Rifles.—Captain C. H. Smith.

Royal Marine Light Infantry.—Lieut. Colonel S. J. Graham.

Royal Marine Light Infantry.—Captain R. P. Coffin.

Royal Marine Artillery.—Captain W. G. Tucker (who did did most excellent service in the action of the 28th August).

1st Life Guards.—Lieut. Colonel the Hon. R. A. J. Talbot.

Royal Horse Guards.—Captain G. L. Wickham.

4th Dragoon Guards.—Major G. R. A. Denne.

4th Dragoon Guards.—Captain J. H. Hussey.

7th Dragoon Guards.—Captain M. C. Day.

19th Hussars.—Lieut. Colonel A. G. Webster.

19th Hussars.—Captain J. C. Hanford-Flood.

Royal Horse Artillery.—Lieut. Colonel C. E. Nairne.

Royal Horse Artillery.—Major and Brevet Lieut. Colonel G. W. Borradaile.

Royal Horse Artillery.—Captain E. O. Hay.

Royal Horse Artillery.—Lieutenant S. C. Hickman.

Royal Horse Artillery.—Lieutenant C. S. B. Parsons.

Royal Artillery.—Lieut. Colonel W. G. Brancker.

Royal Artillery.—Major P. T. H. Taylor.

Royal Artillery.—Major T. J. Jones.

Royal Artillery.—Lieutenant Apsley Smith.

Royal Artillery.—Lieutenant H. V. Cowan.

Royal Artillery.—Captain F. N. Innes.

Royal Engineers.—Lieut. Colonel J. M. H. Maitland.

Royal Engineers.—Major B. Blood.

Royal Engineers.—Captain G. Barker.

Royal Engineers.—Captain E. Wood.

INDIAN CONTINGENT.

2d Bengal Cavalry.—Major H. C. Kemble.

2d Bengal Cavalry.—Captain M. K. Martin.

6th Bengal Cavalry.—Major R. M. Jennings.

6th Bengal Cavalry.—Captain T. C. F. Gordon.

13th Bengal Lancers.—Major R. E. Ryves.

13th Bengal Lancers.—Captain G. W. Deane.

Seaforth Highlanders.—Lieut. Colonel C. W. N. Guinness.

Seaforth Highlanders.—Major W. F. Kelsey.

29th Beloochees.—Captain W. G. Macbay.

Of those who have taken a prominent part in this campaign, none have had harder work, and none have done better work than all ranks in the Mounted Infantry. Captain Hallam Parr, C.M.G., Somersetshire Light Infantry, commanded the Corps until badly wounded on the 24th August, when the command devolved upon Lieutenant C. B. Pigott, King's Royal Rifles, until he, in his turn, was badly wounded four days later. After that date it was under the command of Captain R. C. La-

wrence, 5th Dragoon Guards, until he was invalided a few days ago, when the command devolved on Captain Lord Melgund, Army Reserve, who, having been wounded on the 24th August, lately returned to duty.

The services rendered by the Mounted Infantry have been invaluable, showing what a corps can do whose officers are most carefully selected, and whose non-commissioned officers and men are similarly chosen from those who volunteer for special service of this nature. The officer commanding the Mounted Infantry recommends for special mention :—

Quartermaster Serjeant Saddler, Royal West Kent Regiment.

Serjeant Riordan, Duke of Cornwall's Light Infantry.

Private Corbett, King's Royal Rifles.

Private Bond, South Staffordshire Regiment.

The Chaplains of the different denominations were zealous and attentive to their duties, and carried on their work with a commendable earnestness.

The Staff of the Lines of Communications has been composed of very carefully-selected officers, selected for their knowledge of the army and their experience gained in various positions on the Staff. Without their assistance the campaign could not have been brought to so speedy a conclusion, and I feel especially indebted for the zeal, energy, and ability they brought to bear on their onerous duties. I consider them all to be deserving of reward :—

Major General W. Earle, C.S.I., the General in Command of the Line of Communications.

Colonel Sir W. O. Lanyon, K.C.M.G., C.B., Commandant of the Base of operations.

Colonel R. Harrison, C.B., Royal Engineers, Assistant to Major General Earle.

Lieut. Colonel C. E. Webber, Royal Engineers, in charge of the Telegraph Lines.

Major B. M. Dawes, Leinster Regiment, the officer in charge of the Base at Alexandria.

Major W. A. J. Wallace, Royal Engineers, in sole charge of the Railway Arrangements, in which duties he was zealously assisted by Captain Scott, Royal Engineers.

Major H. M'Gregor, half-pay, Deputy Assistant Adjutant and Quartermaster General.

Major J. Alleyne, Royal Artillery, Deputy Assistant Adjutant and Quartermaster General.

Major C. W. Murray, Gloucestershire Regiment, Deputy Assistant Adjutant and Quartermaster General.

Major J. C. Ardagh, C.B., Royal Engineers.

This officer belonged to the Intelligence Department, but was lent for railway duties to the Line of Communications, where the railway work was especially severe. Captain J. H. Sandwith, Royal Marine Light Infantry, in charge of the advanced Depot.

Commissary General Morris, C.B., an officer of considerable ability, carried on his arduous duties to my entire satisfaction. He and the Commissariat and Transport Officers under his command have worked zealously. I have great pleasure in recommending Deputy Commissary General Robinson and Assistant Commissary Generals Randall and Reeves, C.B., to your favourable consideration.

The Medical Department, under Surgeon General Hanbury, C.B., have done everything that could possibly be done for the care and comfort of the sick and wounded. The manner in which the wounded were removed from the fighting line by the Bearer Company was most satisfactory. The following officers are brought specially to my notice :—

Deputy Surgeon General J. Ekin.

Deputy Surgeon General W. G. N. Manley, V.C.

Deputy Surgeon General J. A. Marston.

Brigade Surgeon O. Barnett, C.I.E.

Surgeon Major G. S. Davie.

Surgeon Major T. F. Dwyer.

Commissary General H. A. Russell has fulfilled the duties of his difficult position in a very satisfactory manner. He and the Officers of his Department named below have kept the Army well supplied with ammunition and stores :—

Assistant Commissary General H. Morgan.

Assistant Commissary General H. J. Mills.

Deputy Assistant Commissary General C. G. L. Campbell.

Deputy Assistant Commissary General J. Steevens.

Deputy Assistant Commissary General E. G. Skinner.

Quartermaster G. Harris.

Conductor R. Weir.

Conductor J. B. Somerset.

The Officers of the Pay Department, under Colonel Olivey, have done their duty to my satisfaction.

The veterinary Department has been well administered under the direction of the Principal Veterinary Surgeon Meyrick.

The Corps of Signallers has been under the command of Lieut. Colonel F. C. Keyser, Royal Fusiliers, and has done good work during the war.

The formation of a purely Military Postal Department has been tried for the first time in this war. It has been very successfully directed by Major G. C. Sturgeon, 24th Middlesex Rifle Volunteers.

The duties of the Intelligence Department were well carried out by the Officers named below :—

Colonel R. H. Buller, V.C., C.B., C.M.G.

Lieut. Colonel A. B. Tulloch, the Welsh Regiment.

Major J. C. Ardagh, C.B., Royal Engineers.

Major A. F. Hart, East Surrey Regiment.

Lieut. Colonel Tulloch had charge of the Intelligence Department at first, and I can confidently say that no man could

evinced more untiring zeal for the public service than he has done since his arrival in Egypt some months ago.

Colonel R. Buller reached the Army on the 1st instant, and took over charge of the Intelligence work. His former services are well known to you, and in this campaign he has displayed his usual and thorough-going soldierlike qualities.

Major Ardagh did excellent service as an Engineer officer at Alexandria previous to my arrival. In addition to his regular duties he rendered valuable assistance in the organisation of our railway system from Ismailia to Kassassin. Always willing to undertake any service, no matter how difficult or trying, he has proved himself to be a most excellent officer in the field, and I have the utmost pleasure in recommending him for promotion.

In former Despatches I have referred to the assistance rendered to me at all times, and in the most willing manner, by Admiral Sir B. Seymour, G.C.B., and the fleet under his command. I would now bring to your notice the valuable services rendered to this Army by Admiral Sir W. Hewett, the Naval Commander in Chief on the Indian Station, not only by the excellent arrangements for the disembarkation of the Indian Contingent at Suez, but for the assistance in placing the locomotives sent from England on the railway on that place. To him, and to all ranks serving under him, this Army owes a deep debt of gratitude.

Admiral Hoskins has worked untiringly for this Army at Ismailia, and I would venture to recommend his name, and that of Captain Rawson, Principal Naval Transport Officer, to your favourable consideration.

My personal Staff was composed as noted below :—

Major L. V. Swaine, Rifle Brigade, Military Secretary.

Lieutenant W. Rawson, R.N., Naval Aide de Camp.

Captain F. M. Wardrop, 3d Dragoon Guards, Aide de Camp.

Lieutenant E. S. E. Childers, Royal Engineers, Aide de Camp.

Lieutenant A. G. Creagh, Royal Horse Artillery, Aide de Camp.

Lieutenant J. Adye, Royal Horse Artillery, Aide de Camp.
Brigade Surgeon R. W. Jackson, C. B., Medical Officer.

I cannot speak too highly of Major Swaine, my Military Secretary. His tact and discretion in dealing with foreign authorities enabled him to render me most valuable services. He is an officer that would do credit to any military position for which he might be selected.

Of my Aides de Camp I have to regret the loss of Lieutenant Rawson, of the Royal Navy, who was mortally wounded at Tel-el-Kebir. During the Many journeys I made by night I found him of great use in directing our line of march correctly, through his knowledge of the stars. On the 13th instant I consequently selected him to conduct the Highland Brigade during the night to the portion of the enemy's works where I explained to him I wished them to storm. This duty he performed with the utmost coolness and success, but lost his life in its execution. No man more gallant fell on that occasion.

His Serene Highness the Duke of Teck, Honorary Colonel of the 24th Middlesex Rifle Volunteer Corps, joined this army as a volunteer, and has served on my personal Staff. He has been present with me at all the actions during the campaign.

Brigade Surgeon Jackson, C. B., who has seen service in all parts of the world, has, through the many wars he has taken part in, distinguished himself throughout by his coolness under fire and in zeal as a medical officer. I would venture to recommend him for special promotion.

The Head-quarter Staff remain now alone to be noted; and here again I feel great difficulty in referring to the services of any individual where all are first-rate Staff officers, and had been carefully selected for the work each had to perform. By them the machinery of this Army has been kept in efficient working order, and I cannot but feel that the country is

largely indebted to them for the successful and early termination of the war.

I have already referred to the Chief of the Staff; and I cannot close this subject without referring pointedly to another, Brigadier General the Hon. J. C. Dormer, C.B., the officer second in rank belonging to the Head-quarter Staff. He has had long and varied experience on the Staff. He thoroughly understands our Army system in all its various phases, and adds great tact and judgment to his other many high military qualities.

I give below the names of the other officers who were members of the Head-quarter Staff, and I earnestly hope that the services of each and all of them may be taken into your favourable consideration.

Colonel the Hon. P. Methuen, the Commandant at Headquarters Camp, in addition to the fatiguing duties of his office, was the Staff Officer selected to supervise all the press matters in connection with newspaper correspondents. This most delicate duty he carried out with great tact and judgment, and to my entire satisfaction.

Lieut. Colonel F. W. Grenfell, King's Royal Rifles, Assistant Adjutant General, is a most excellent Staff Officer, knows his work thoroughly, and does it well.

Lieut. Colonel W. F. Butler, C.B., Assistant Adjutant General, is a very able officer of high attainments and of great resource.

Lieut. Colonel G. B. Wolseley, York and Lancaster Regiment, Assistant Adjutant General, whose services were placed at my disposal by the Commander in Chief in India, has done his work well.

Major J. F. Maurice, Royal Artillery, Deputy Assistant Adjutant General, an officer of untiring zeal and great ability, and most deserving of reward.

Major C. Grove, East Yorkshire Regiment, Deputy Assis-

tant Adjutant General. This has been his first campaign. He is very able, and is a very rising Staff Officer.

Brigadier General J. H. Rocke, Deputy Judge Advocate General. I am proud to say that, owing to the excellent conduct of the men, he has had but little to do, but what he has done he did well.

Colonel H. G. Moore, V.C., Argyle and Sutherland Highlanders, performed the duties of Provost Marshal to my entire satisfaction; and Captain C. E. Beckett, 3d Hussars, and Major G. Barton, Royal Fusiliers, commanding respectively the Mounted and Foot Police, did their work most efficiently.

In conclusion, it only remains for me to add how much I feel indebted to the non-commissioned officers and rank and file, who have borne the trying hardships of this desert campaign without a murmur, and in the most uncomplaining spirit.

Their valour in action and discipline in quarters have shown them to be worthy successors of those gallant soldiers who, in former days, raised the reputation of England to a very high position among nations.

I would specially bring to your notice the names of the following Non-commissioned Officers and Privates who have been recommended to me by their Commanding Officers as most deserving soldiers :—

GRENADIER GUARDS.—Pioneer T. Winnett.

ROYAL IRISH REGIMENT.—Serjeant E. O'Donnell.

DUKE OF CORNWALL'S LIGHT INFANTRY.—Serjeant Major G. Carr.

YORK AND LANDCASTER REGIMENT.—Colour Serjeant Walkley, Private W. Kavanagh, Private J. Kendall, Private Baskerville, Private J. Marsh.

ROYAL IRISH FUSILIERS.—Private J. Kelly.

ROYAL HIGHLANDERS.—Colour Serjeant Young, Colour Serjeant Watt, Private Donald.

GORDON HIGHLANDERS.—Serjeant Major Green.

CAMERON HIGHLANDERS.—Serjeant Major J. Campbell, Colour Serjeant W. Young, Colour Serjeant J. Newell, Colour Serjeant W. Gunn, Colour Serjeant J. M'Laren, Colour Serjeant J. M'Neil, Serjeant T. Salter, Serjeant D. Gunn, Serjeant Piper J. Grant, Serjeant Drummer J. Sanders; Corporal S. Syme, Private D. Taylor, and Private T. Chalmers (captured a gun); Private J. Sheehan.

HIGHLAND LIGHT INFANTRY.—Corporal W. Buchan; Serjeant S. Davis, Private A. Sutherland, Private G. Sutherland, Private J. Robb, Drummer J. Fitch.

ROYAL MARINE LIGHT INFANTRY.—Corporal H. Henry, Bugler F. F. M'Daniel.

ROYAL MARINE ARTILLERY.—Colour Serjeant White, Gunner F. Hamilton, 6th Company Gunner J. Judge.

ROYAL HORSE ARTILLERY.—Serjeant Lockyer, 2210 Serjeant J. Beardsly, 2301 Corporal Lemmon, 3699 Serjeant R. M. Laird; I Battery 3d Brigade Royal Artillery, Battery Serjeant-major Samuel Firth; C Battery 3d Brigade Royal Artillery, 5312 Bombardier M. Kelly; F Battery 1st Brigade Royal Artillery, Battery Serjeant Major Bowman; H Battery 1st Brigade Royal Artillery, 5324 Serjeant J. M'Knight.

7th Battery 1st Brigade, Northern Division, Royal Artillery.—17931 Acting Bombardier E. G. Needs, Havildar Major Hyder.

I have, &c.,

G. J. WOLSELEY, General,

Commander in Chief of her Majesty's Forces in Egypt.

Throughout the whole campaign the action of the cavalry was magnificent.

Their heroic valour, desperate bravery, and valuable ser-

vices show the immense value of this arm. There ought to be 10 more regiments of English cavalry.

It was delightful to see that in Egypt the guns were used with decision and boldness.

Field Artillery has grown to its present state of efficiency from a condition in which it could hardly be called an arm of the service at all. The change has been comparatively rapid. Go back as far as we may in the history of war, there has always been infantry, and perhaps cavalry. Field artillery, on the contrary, is a young service which may be said to have attained the greater part of its development since the Seven Years' War. Moreover, it began by being a plebeian organization in the midst of a military aristocracy, and the prejudice so engendered hangs about it now, more particularly in England. The same prejudice has existed in other armies, and only given way to the facts of the battlefield. The English army had seen no considerable battlefield for many years, and had, therefore, been slower in arriving at an understanding of the actual value and best methods of using field artillery. Step by step, however, the knowledge is growing, and it is now rare to hear the stereotyped old assertion that artillery frightens more than it kills. Even if this saying were true, it would be little to the point, because the most important of all maxims in war is that it is not so much the number of killed which wins the battle as the effect produced on the survivors. But a good field artillery as now organized has very deadly effect upon all troops in the open. We are never likely to see so long a tale of killed and wounded by shells as by infantry fire, for the simple reason that the action of artillery will be chiefly at long ranges above 1,000 yards, and more often than not against troops under cover. Under such circumstances, infantry fire would be of no use at all, or, at least, of so little use as not to be worth the expenditure of ammunition. But there is no reason why artillery fire should

be confined to these long ranges. It will always act when infantry does not; but the difference between good and bad artillery tactics will be that the good tactician will use his guns on occasions which will entirely escape the bad one. The power of the German guns in 1870, considered as weapons, was many times less than that of any field artillery to-day. Yet, in spite of the excellence of the infantry, it is not denied that the French were chiefly overawed by the artillery. Let us take one case as a type of many. It will serve to illustrate both the bold use of the arm and the manner in which it produces great effects even without creating much slaughter.

No serious student of war will deny that the battle of Sedan was a great crisis in the history of the Franco-German War. Of course the Great Napoleon, Henri IV, Turenne, the Great Condé, Luxembourg, Villars, Vendome, Davoust, Massena, Soult, Bernadotte, Ney, St-Cyr and other great soldiers would not have placed the brave French Army in such a position. If the Army of MacMahon had escaped to Paris, the capture of the city would have been practically impossible. After this and the other great battles, it was found that the actual losses of the enemy by artillery fire were comparatively small, because the Prussians had no shrapnel; but the official account of the war written by the Prussian Headquarter Staff, under the superintendence of Von Moltke, tells us that « not only their (French) batteries and foremost lines of infantry, but also their reserves moving backwards and forwards, and the masses of cavalry vainly seeking cover, were overwhelmed with such an iron hail that they fell more and more into disorder, and found their power of resistance wellnigh broken before they were even able to engage in the struggle. The fate of the battle was already, to a certain extent, decided by this employment *en masse* of the German artillery, even without the further advance of the infantry. » « So annihilating was the fire of the artillery that the French were scarcely ca-

pable of any organized resistance when the German infantry, towards 3 p.m., moved forwards from all sides against the wood. » The great stroke of the day, which prevented the escape of the French, even into Belgium, was delivered by the artillery of the 11th and 5th Army Corps, « which deployed, trusting mainly to their own strength, in one long line, though opposed to the hostile masses of horse threatening them and with their backs to the Belgian frontier. » The reason why artillery was used for this purpose was that it was able to move rapidly in advance of the infantry columns, which were still marching round the west of the French army when the artillery was already in action on the north. Now if this were the only great battle of modern times in which artillery was properly used and produced a great and decisive effect, it would be sufficient to establish a precedent for future imitation. But nearly the same effects on a greater or less scale were produced by the German artillery throughout the whole war, and if Sedan is worthy of special remark, it is because the Germans had gained confidence in the use of field artillery, as battle after battle showed its value, and on this crowning occasion brought to bear the experience gained in all the previous engagements.

To arrive at general principles for the employment of field artillery it is useless to go back to the time of Frederick the Great, whose artillery was not famous, or to that of the great artilleryman Napoleon I., because in their days the fire of both guns and rifles was far less powerful than at present at the same ranges. Their battles were fought at short distances, and therefore under totally different conditions. Germans and French combined declare that the handling of the German artillery in 1870-71 was the great tactical feature of the war, and we have, therefore, to search that campaign for the principles which we seek. They have been laid down with great clearness by the general staff, and all German criticisms of

other wars have been based upon the fulfilment or non-fulfilment of those principles, which are in brief:—

First.—To regard the artillery as a great offensive arm, capable of moving more quickly than the infantry, and therefore of arriving within striking distance of the enemy before the battalions.

Second.—To use this power of mobility by pushing on the batteries generally in front of the infantry and by that means confusing the plans of the enemy.

Third.—To mass the guns in great bodies, which can be directed by a single impulse, so that their fire can be turned to effect in producing the greatest possible result on a comparatively small space in a given time.

Fourth.—To bring these artillery masses as soon as possible within decisive distance of the enemy—that is to say, at ranges of some 1,200 to 1,500 yards.

All the details of advice which are now given in good tactical books are but amplifications of the above rules; and we find that wherever the rules have been followed they have led to the success of artillery, while their non-fulfilment has brought nothing but weakness and poverty of result. The French, for instance, in the same war used their artillery timidly at longer ranges and in a more scattered formation. Their guns were, it is true, indifferent, but the chief failure was owing to tactical errors. Both Russians and Turks pursued what may be called the theoretical tactics of artillery. Hesitating to expose the gun detachments to infantry fire, and anxious to develop the questionable advantage of long range, they opened fire at long distances and never pushed great masses of artillery into the thick of the fight. They forgot in short, that though modern field artillery can fire at great range, the effect of the guns increases in a high ratio as the range diminishes. Speaking figuratively to a certain extent, the difference between the two systems is that the German artillery

concentrated and closed with its antagonists, while that of the other armies remained skirmishing from a distance. It is only rarely that artillery can actually close with its enemy and use case, but the great principle of doing so must always be in the minds of those officers who wish to handle artillery so as to produce the greatest possible result with it. The maxims of war are based upon the strength and the weakness of human nature, and we may search in vain through the pages of history for the name of a great general who was timid in the matter of closing with his enemy at the decisive moment. On land and sea it was always the same. The successful commander throws his whole power into the fight at the moment which he judges propitious. The timid general, on the contrary, is careful to avoid losses, and, shrinking from the decision of the combat, lets his opportunity slip by. What is true of an army, or of any military force, is equally true of artillery, and it will inevitably be found that the guns which are kept hovering in the distance undirected by a single firm command will waste their time, produce little effect during the whole battle, and leave the force without their active co-operation at the moment when everything may depend upon the exertion of the greatest available energy.

It will be granted by every student of modern tactics that battles are in these days chiefly decided by the use of firearms. Advances of the nature of charges take place, but one side or another has had enough of it and gives way before the shock of collision. The fire of artillery, provided as it now is with shrapnel, is terrible against all troops which oppose it in the open field, and it has this advantage, that it can be disengaged with ease from the midst of a struggle in one part of the field and transported with great rapidity to another. This quality is of extreme importance. We are hearing every day the advocacy of mounted infantry, and for what purpose? Simply that it may have the faculty of mobility, which is already possessed by artillery.

Compiled by Major the Marquis d'Entragues, M.M. Reserve Forces.

Young Skobelev, no mean master of war, insisted on having a numerous artillery in his expeditions against the Turcomans. It is sometimes said that artillery may hamper the march of an army. It might do so under certain conditions; but, if so, cavalry would be the first to suffer by the immobility of the guns. Yet what do we see as the principal feature of improvement in cavalry tactics? Nothing more nor less than manœuvres intended to give opportunities for the exertion of the full power of horse artillery before, during, and after a great cavalry charge. The great cavalry manœuvres conducted in Central Europe, both last year and the year before, were chiefly devoted to this one end—the development of the whole power of artillery acting with cavalry.

We saw in the early actions on the Freshwater Canal the English guns assuming a chief part in the fighting, even when there were only two pieces present. At Tel-el-Mahuta Lieutenant Hickman's small command, according to the official accounts, repelled attacks made both from the front and flanks. In every other action, the guns, even when on the defensive, showed not only power, but brilliancy of effect. At Kassassin the cavalry charge was preceded by the fire of horse artillery, which unlimbered within some 400 yards of the Egyptian infantry. The great fight of the war, the storming of Tel-el-Kebir, was principally an infantry battle, because the advance was made at night, and the intrenchments were stormed with a rush in the dusk of the morning. Yet even here we find the guns displaying both mobility and tactical boldness. The batteries, or some of the batteries, struggled over the ditch and parapet and came into action against the flying Egyptians, and one of them actually moved down in rear of the trenches, driving out the defenders step by step with a flanking fire at close range.

Unquestionably, that arm has not yet reached the development which may be expected from it within a short time. Even

fair tacticians persist in arguing always from the past with regard to an arm which is now vastly superior to what it was in the Franco-German campaign. Much yet remains to be done with it, and some steps may be taken almost immediately. One of them is the perfecting, or, at least, greatly improving, the fuses, which are to be used with shrapnel. It is now generally acknowledged that there are circumstances under which a shrapnel shell acts better with a time fuse and other circumstances when its power is better developed by a percussion fuse. Now, it is well known that compound fuses capable of acting both as time and percussion can be made. In fact, such fuses were at one time in the English service, and the experience of manufacturers is now very much greater than it was then. Nor are the old pattern sights at all satisfactory. All practical men know that they are difficult to aim with and that the calculations requisite when allowing for wind, inclination of wheels, and the rest, are so elaborate that they will almost certainly be neglected in the heat of action. A radical change is wanted in this matter, and here again we know that such sights are already available and have been for some time in use on the practice grounds of other nations, though designed in England. Rangefinders also, though adopted in the service, have not yet been made thoroughly workable. They are still often regarded as toys, and the organization for their use leaves much to be desired. Yet the knowledge of the correct range is one of the most vital points in the working of field artillery. It is easy to say that such improvements as these are new, experimental, and therefore to be deprecated. But it is exactly the novelties in weapons and in tactics which tell so greatly upon the field of battle. From the ramrods of Frederick the Great to the needle-gun in 1866 and the improved artillery and tactics of the Germans in 1870 we may see the action in war of novelties prepared in peace by those who are wise enough to look a little in advance of the

latest campaign. The Egyptian army was well-found in all the appliances of warfare that were essential to success. It had a fine artillery—indeed, the guns were the same as had been used by the Germans in the Franco-German war. The great superiority we had from first to last over the Egyptian artillery was this, that our guns when in action were enabled to overpower twice their number. The Egyptian gunners were excellent shots, but the reason we defeated them was that while the Egyptians used the old-fashioned common shell which they had obtained from Messrs. Krupp, we adopted the shrapnel shell. The Egyptian shells sank deeply into the earth before they exploded. That alone furnished a lesson which we ought to take to heart—namely, that no nation could afford to fall behind other nations in the inventions of the day and the nation which did had nothing before it but disaster staring it in the face.

Their infantry, were excellently drilled, disciplined, and armed; but their officers were badly educated and instructed and were drawn from the same class as the men themselves. But the Egyptians were pitted against an infantry the best in the world, and commanded by officers the best in the world. We had splendid soldiers commanded by splendid regimental officers.

The Germans divided the space between two opposing bodies of infantry into three zones, which they know respectively as the short, middle, and long distances. The first extends to 400 mètres from the firing line, the second to 700, and the third to 1,200 mètres. After the long distance, they consider that, for all practical purposes, fire action must be resigned into the hands of artillery. For, though the rifles will carry much further, distances cannot be judged, and the fire is so uncertain as not to be worth the expenditure of cartridges. The short zone is supposed, as a rule, to be handed over to the free fire of the troops, which, be it understood, are still

dispersed—that is to say, each man chooses his own mark. The middle zone is covered by what is called *Abtheilungsfeuer*, which is still the fire of dispersed men, but carefully concentrated upon particular objects under the orders of the officers. After 700 mètres it is not considered worth while to fire at any object which does not present a very considerable extent of surface, both in breadth and depth, such as a column of infantry or cavalry or a battery of artillery. It is also understood that the distances are partly judged by eye and partly by observation of the striking points of bullets fired with the known elevation of the sights. This is all very well so far as the theory goes, and certain rules are laid down for the accurate observation of the distance ; but it would be very interesting to know how the regulations are actually carried out on the field of manœuvres. Is it possible during the din and in the smoke caused by the engagement of large bodies of troops to determine these points with anything like accuracy ? In some cases a sort of combined fire is used—that is, some of the troops have one elevation for their rifles, others have another. It would be interesting to know in what proportions these different kinds of fire are used. Again, the general principle which guides German infantry fire is that it should be sudden and unexpected, rather than slow and sustained, in order that a sort of offensive character may be given to it, and the nerves of the enemy correspondingly impressed. But we still want to know exactly how this is done, and how far the principle is found to be capable of application on the battle-field. Another disputed question has been that of volleyfiring, which is principally effected by groups of men coagulated together among a swarm of skirmishers. Volleys by men drawn up in line are understood to be reserved for special occasions, such as when a position is just taken, and the flying enemy are to be pursued by fire, while the successful attacking force is getting itself into order, or when the enemy's cavalry sweeps round to the rear and attacks troops which are not in fighting

formation. The French regulations are rather different from these.

The bulk of an army must always be composed of infantry, which is the cheapest and the most universally valuable arm. Repeating Rifles will probably soon be used.

Infantry are now supplied with range-finders, and the main difficulty is to persuade the men to fire low enough. Doubtless, until lately sufficient care has not been devoted to the practical shooting of infantry in the field, and the present war comes before the new regulations have had time to be of service. But there has always been encouragement to the men to perfect themselves. Prizes have been given, and first-rate shooting has brought with it some small advantages. If the lessons of the present war are laid to heart, there will be no grudging of money or trouble to turn out an infantry which will be the best in Europe, so far as the use of the rifle is concerned.

